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CONTENTS

THE 1932 AGRICULTURAL OUTLOOK FOR CALIFORNIA*

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PREFACE

The preparation and dissemination of economic information designed to assist farmers in adjusting their production to market demands is one of the important activities of the United States Department of Agriculture and of the state agricultural colleges. In planning their production and breeding programs farmers must of necessity make some estimate of the probable trend of future prices. Plans based on the best possible estimate of the market outlook at home and abroad for a year or more to come are indispensable in obtaining higher farm incomes. A summary of the present available facts bearing upon the future economic conditions of important farm products in California is given in this report. It must be recognized, of course, that many conditions, which are not now apparent, may arise before the products are sold which will nullify the most careful estimates.

The statements in this report necessarily represent the state point of view, and in many instances must be modified to meet local and individual conditions. Adjustments that are most profitable in one section may not be most profitable in another. Even in a time of declining prices, some farmers located on land particularly suited to one crop may make more money by growing that crop than by planting another which is on a rising price level but to which the land, climate, and market facilities are ill adapted. Thus the broad facts about the outlook, which are herein presented, need to be supplemented by a more detailed knowledge of local conditions. Farm Advisors being intimately acquainted with the agriculture and farm management practices in their respective counties, are able to furnish much information of value to farmers in deciding upon individual adjustments.

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Adjustments of acreage or of breeding plans alone cannot, of course, assure satisfactory profits. Reduction in costs, improvement in quality, and efficiency in marketing are also important considerations.

In the preparation of this report information was obtained from many sources, among the more important of which are the United States Department of Agriculture Bureau of Agricultural Economics, United States Department of Commerce, California Crop Reporting Service, California Federal-State Division of Markets, and many cooperative marketing associations and commercial companies. The studies of The Giannini Foundation of Agricultural Economics relating to the factors affecting the supply, demand, and prices of important California farm products provided much of the basis for the interpretations contained herein.

THE GENERAL PRICE LEVEL AND DEMAND SITUATION

Changes in the general price level and in consumers' demand have a very important influence upon the prices of agricultural products. The following statements of the probable future changes were prepared by the staff of the Giannini Foundation of Agricultural Economics. These statements are based on an interpretation of past events and present conditions. It is fully recognized that unforeseen, although not necessarily unexpected, developments of national or world-wide magnitude may greatly alter the general price level or demand situation.

The General Price Level.—In the absence of a considerable increase in the volume of money and credit in circulation, the general price level in this country is likely to continue below the 1921–1929 average for some years.

The price levels in the United States measured in terms of dollars redeemable in gold cannot rise materially without a corresponding rise in prices measured in gold in other countries, and very low levels of commodity prices are probable throughout the world so long as the present lack of international confidence and intense competition for the gold supplies, now concentrated in a few countries, continue. Except through fundamental and definite cooperation between nations in a more effective use of the world's gold supplies, the general price situation does not seem likely to improve materially in the near future.

It is very unlikely that money and credit in the United States will be expanded so much that prices will cease to be measured in dollars redeemable in gold. Considerable expansion of credit may be

possible without departing from the gold standard because there is a very large stock of monetary gold in this country. However, a better distribution of the world's supply of gold will necessitate a considerable reduction in the amounts of gold now held by the United States and France.

Changes in the general price level are equivalent to changes in the value of money and tend to produce similar changes in the prices of

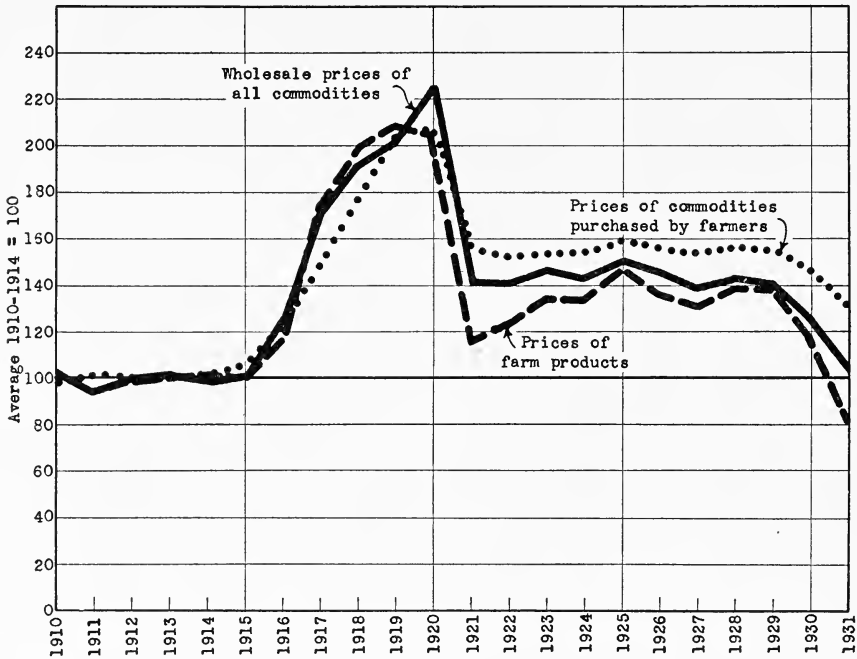

Fig. 1.—Indexes of wholesale prices of all commodities, prices of farm products, and prices farmers pay for commodities purchased for use in living and production.

commodities and services. Rapid changes in the general price level are so closely interwoven with changes in business activity that it is very difficult to isolate the effects of changes in the value of money from those of changes in supply or demand. If all prices moved together there would be much less disturbance, but this is not the case as prices of raw material change rapidly and those of finished goods and services very slowly.

Average wholesale prices of all commodities are often used as indicators of changes in the general price level partly because wholesale prices change faster than retail prices and slower than prices paid producers of raw material, but largely because no indexes are available that include all of the various prices paid for goods and services.

Wholesale prices of all commodities in the United States and many foreign countries have fallen practically 30 per cent since 1929. Prices farmers receive for their products in the United States, on the other hand, have fallen about 50 per cent. This greater fall is due largely to changes in demand for and supply of these products. Prices paid by farmers for commodities purchased have decreased only about 15 per cent. Wages of agricultural labor have decreased about 30 per cent, but interest costs and taxes have remained almost stationary. As a result, farm incomes have been reduced to extremely low levels.

A further rapid decline in the general level of wholesale prices of all commodities in the near future does not appear probable and some increase may be expected in 1932 or 1933. If wholesale prices cease to decline, the spread between prices farmers receive for their products and the prices they pay for commodities and services may be expected to become smaller. Even if wholesale prices do not increase, the prices received by farmers for their products may be expected to recover a part of the amount by which the decline in such prices has exceeded that of wholesale prices of all commodities as soon as business conditions and demand improve.

Domestic Demand.—Only a small increase in domestic demand for California agricultural products in 1932 over that of 1931 may be expected.

Increase in the domestic demand for farm products in 1932 is largely dependent on improvement in the business situation within the next few months. Business activity, employment, and payrolls are now near the lowest levels reached since 1929. Employment has decreased about 30 per cent, while payrolls which also are affected by part-time employment and wage reductions have decreased about 50 per cent from the average in 1929. The purchasing power of a large part of the population is therefore very low. Average cost of living in the cities has not fallen in proportion. It has decreased only about 15 per cent. Food items in the cost of living, however, have fallen about 28 per cent, while most other items have decreased very little.

Our present unused productive capacity of machinery, buildings, labor, and supplies of raw material will be utilized to produce finished goods as soon as prices rise or costs become adjusted to the lower level. Business can be as active at one level as at another, but the change to a lower level necessitates many difficult readjustments. Fixed charges for debts contracted at higher price levels and curtailed credit facilities are the chief obstacles to increased business activity

in this country. A large part of the necessary readjustments both in fixed and operating costs has already been made and many industries have placed themselves in a position to produce at low costs per unit through their ability to obtain raw material and labor at lower prices. Some further reductions in salaries and wages may occur. The reconstruction finance corporations will help to relieve the credit stringency and make more funds available for business activity.

Over a period of years the demand for agricultural products will tend to rise as business activity and employment increase above the present unusually low levels. In 1931 business activity fell to a lower level than was reached in 1921. The rate of recovery from the present depression can hardly be as rapid as prevailed in the latter part of 1921 and 1922 because eleven years ago there was a much larger potential demand for new construction and new equipment than there is today. At that time there was a serious shortage of dwelling, office, and factory buildings estimated to be equivalent to all the construction that would normally be completed in two and a half years. Therefore, building construction experienced only a temporary minor recession. New construction was an important factor in lifting business out of that depression and of increasing employment. From 1922 to 1929 new construction was at an abnormally high level, satisfying the great accumulated demand of the War and post-war period and creating excess capacity. In the past two years new construction has fallen to very low levels and in time a shortage may develop. However, the construction industry cannot be expected to furnish the vigorous impetus to the recovery of employment that it did in 1921 and 1922. The railroad, automobile, and electric power industries also contributed greatly to business recovery in 1921 and 1922. When the railroads were returned to private management in 1920 the roadbeds and equipment generally were in poor condition. The growth of the automobile and electric power industries had also been retarded by the World War. Following the War the accumulated potential demand was released, resulting in a very rapid growth of these industries. The need for additional equipment and replacements does not appear as great at the present time, but indications are that the financial conditions of the railroads may be improved in the near future and that demands by railroads for material and labor will stimulate some business activity. The automobile industry may also be expected to show some increased activity from the introduction of improved models and the increasing need for replacement of old cars.

Although the recovery from the present low levels of consumer purchasing power in the United States may be slow, there is ample

justification for believing that some improvement will occur within a year or two. Indications are that the stocks of consumers' goods, which had accumulated at the beginning of this depression, have already been largely depleted. The low levels of industrial production in 1931 indicate that stocks in retail channels are extremely small. The need for replenishing these stocks and for providing current requirements ought to stimulate some increased industrial production in the near future and even though the general price level may not rise materially, employment and payrolls may be expected to increase and demand for agricultural products to improve. Factories and machinery, even when idle, deteriorate and become obsolete. Replacements and repair of buildings and machinery to provide for the necessary current production sooner or later will require additional workers. Each increase in employment creates a demand for additional goods and services, and in order to supply the demand more workers are needed. Over a period of years the development of new industries may also be an important factor in increasing employment. Human wants are far from being satisfied.

Foreign Demand.—The foreign demand for all of California agricultural products during the export season for the 1932 crops is not expected to be any better than it was during the 1931 export season, and it may not be as good. Business activity in most foreign countries is just as bad as, if not worse, than in the United States. Wages declined somewhat during 1931 and in most countries unemployment increased.

Trade restrictions of various kinds have been instituted by most countries in order to create employment and balance budgets. Many countries are applying quota restrictions in addition to tariffs. In some cases total embargoes have been placed against certain goods; for example, Spain, Japan, and Poland wholly restrict the importation of apples. England, for years the outstanding example of free trade, adopted tariff measures late in 1931. So far the restrictions promulgated have little direct effect on the exports of California agricultural products, but indirectly they tend to reduce all imports into England. Moreover, it appears probable that England may adopt additional measures to curtail imports. Trade restrictions once established tend to remain for long periods, as evidenced by United States tariff duties. The full effects of many of the trade restrictions established in recent years are not yet clearly evident. However, they can be expected to restrict further the foreign demand for our exports. Some of these restrictions may be retaliatory measures against our tariffs which tend to shut foreign goods out of the

United States and to curtail the purchasing power of other countries for our exports.

Changes in the value of money and control over foreign exchange have adversely affected our agricultural exports and will continue to do so for some time to come. Following the action of the United Kingdom on September 21, 1931, twelve other countries suspended the gold standard in 1931. Australia and Argentina practically went off the gold standard in December, 1929, and Mexico had made silver legal tender in July, 1931. In most of these countries and in about 15 others the governments are attempting to control foreign exchange. The restrictions vary in different countries from some regulation of the total amount available to complete limitation of the exchange available for the payment of imports except for indispensible goods. Control of foreign exchange curtails imports as effectively as additional tariffs, quotas, and embargoes.

The countries receiving most of our agricultural exports as well as our main competitors in foreign markets are now off the gold standard and their currencies have depreciated substantially, some as much as 30 per cent. If our export prices in terms of gold are to remain at the same level as before they abandoned the gold standard, then the price to the foreign consumer in terms of his money must increase as much as his currency has depreciated. Until his wages have increased in proportion, his purchasing power and demand have been curtailed. However, wages rise slowly. The other alternative is for our export prices to be reduced. A similar situation does not arise from trade between two countries both off the gold standard, such as between the United Kingdom and Australia, because their relative prices tend to remain unchanged. Such countries will have less difficulty than they had in the past in competing with our exports in foreign markets.

Another unfavorable factor affecting export demand arises from the Empire preferential duties. Products from Australia and other parts of the British Empire are subject to the Empire preferential duties, which provide for lower tariffs on goods from such countries than on similar products from the United States. This makes it more difficult for many California products to compete in the English and Canadian markets, two of the most important foreign markets for California agricultural products.

APPLES

The general apple situation is such that in seasons of favorable weather heavy supplies of the commercial crop may be expected to continue. Efforts of European countries to expand and to modernize their fruit industries, and increasing supplies of fruits that compete with apples, indicate continued difficulties in marketing large apple crops. The removal of trees during the past decade, however, has gone far toward correcting the situation caused by overplanting twenty-five years ago and has done much toward placing the industry on a sounder economic basis.

The 1931 commercial crop of apples in this country was the fourth largest on record, amounting to 104,196,000 bushels as compared with 101,004,000 bushels in 1930 and an average of 97,870,000 bushels for the five years of 1926–1930.

From 1908–1912 to 1928–1931 average production in the three Pacific Coast states increased nearly 300 per cent, although numbers of trees decreased 28 per cent as the result of removal of trees from poor locations and a thinning-out process. This tremendous increase in production in the face of decreasing tree numbers was caused chiefly by a steady increase in the bearing capacity of the trees. For some years the increases in production have been at a lower rate. During the last four seasons production averaged only 12 per cent greater than during the previous five years. Although only 14 per cent of the trees in these three states are yet to come into bearing, the potential bearing capacity of the orchards is being maintained by resets and by increase in age of trees.

In California the peak of production of Newtowns has apparently been reached. About 93 per cent of the total acreage of Newtowns in 1928 was in bearing while only 7 per cent was nonbearing. Furthermore, 24 per cent of the bearing acreage was over 31 years old. On the other hand a further increase in the production of Gravensteins is expected. In 1928, 16 per cent of the total acreage of Gravensteins was not in bearing while 21 per cent of the bearing acreage was not in full bearing and only 4 per cent was over 31 years old.

Most of the increase in the commercial production of apples is expected to occur in the barreled-apple states. In 1930 about 29 per cent of the apple trees in the north central states had not yet reached bearing age, while in the Atlantic states about 27 per cent of the trees were nonbearing.

In the last five seasons (1926–27 to 1930–31) apple exports from the United States have averaged one-sixth of the total commercial crop. About one-seventh of the commercial barreled-apple crop and one-fifth of the commercial boxed crop were exported during this period. Despite a larger apple crop in this country, this season (1931–32) apple exports are running somewhat behind those of last season which were the third largest on record. This decline in exports has been due to increased competition from large Continental European apple crops this season and extremely unfavorable economic conditions including unfavorable exchange rates in our most important foreign markets.

From a long-time point of view there appears to be a definitely upward trend in the consumption of fruit in European countries. The extent to which this will be reflected in larger takings of American apples, will depend to a considerable extent upon the competition of European-grown supplies. Apples are produced in practically all European countries. Serious efforts are being made in many of these countries to put their fruit industries on a more modern basis. Progress in this direction is being made particularly in the Netherlands, Switzerland, northern Italy, and parts of Germany. In these countries new plantings are being made with proper spacing and proper distribution of varieties, and production and marketing methods are being improved. While some of the most important surplus-apple-producing countries of Central and Southeastern Europe still show no evidence of significant improvement in the apple industry, it is clear that on the whole more competition, especially from the point of view of quality, may be expected.

APRICOTS

The production of apricots in California is nearing the peak. Approximately three-fourths of the total acreage is now in full bearing. The nonbearing and young-bearing acreage is not much larger than is necessary to offset the decline in the present full-bearing acreage. Heavy production and low prices are to be expected for a number of years, however, whenever yields per acre are average or above.

The 1931 apricot crop was the largest on record, amounting to 245,000 tons, as against the 1926–1930 average of 195,000 tons. Weather conditions last year were favorable to high yields per acre. The condition of the crop was 78 per cent of normal as against the

1921–1930 average of 68 per cent. As a result, the actual production was about 35,000 tons above the trend.

During the past decade there has been a marked upward trend in production, rising from about 130,000 tons in 1921 to about 210,000 tons in 1931, an increase of 62 per cent. Indications are that the future increase in the trend of production will be considerably smaller than that which has occurred. The peak of production will probably be reached within the next few years and at that time the average tonnage produced will probably be below the large crop of 1931. In any given year, of course, production may be considerably above or below the trend, largely as a result of the weather conditions.

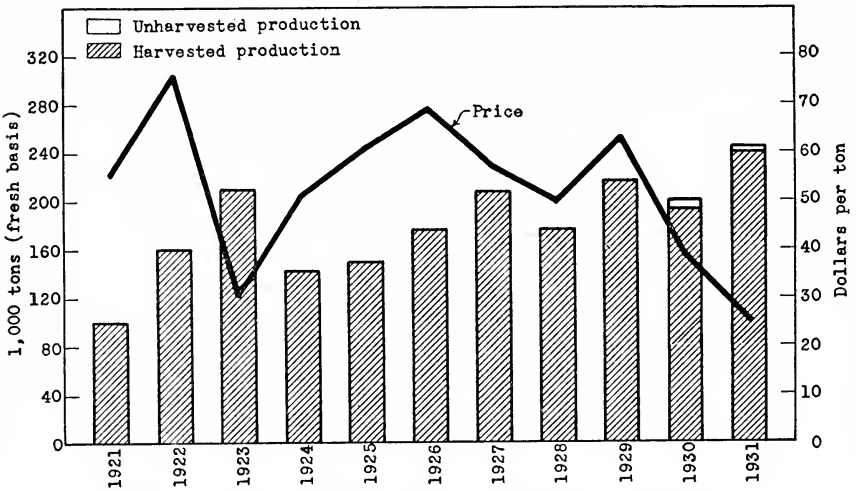

Fig. 2.—Production and farm price of apricots in California.

The available information indicates that about 7 per cent of the total apricot acreage in the state is nonbearing, 16 per cent young-bearing, and 77 per cent full-bearing. An apricot tree comes into commercial bearing at five or six years of age and reaches full bearing at twelve or thirteen years of age. The normal life is about thirty years. During the next few years some orchards will become obsolescent as the result of old age. Other orchards may be removed or abandoned because of the inability of the owners to pay operating costs with returns based on the low level of prices which has prevailed in the past two years and which is likely to prevail for some years to come. Low prices will also force growers to economize on their cultural practices which may result in reduced yields per acre. These conditions may largely offset the increase in productive capacity of the young trees.

As a result of the pronounced increase in production of apricots since 1921, prices paid to growers declined. This decline did not become serious, however, until 1930. From 1921 to 1929, farm prices averaging $57 a ton, although tending downward were relatively favorable. In 1930 they dropped to $39 a ton and in 1931 to $25 a ton. In addition to the large crop, the low price in 1931 was caused by the decline in the general price level and the depressed buying power of consumers. While no material rise in the general price level is to be expected during the next few years the buying power of consumers will increase substantially as business conditions and employment improve. Consequently the demand for apricots within the next two or three years is likely to be materially above the present low level. It is not likely, however, that the demand will increase sufficiently to enable the prospective heavy production to be disposed of at prices as favorable as those which prevailed prior to 1930.

The low prices received in 1931 were in part offset by a reduction in the costs of producing apricots. Prices of commodities for both living purposes and production purposes were about 20 per cent lower in 1931 than they were from 1921 to 1929.

Part of the apricot crop has a three-way outlet: it may be dried, canned, or shipped fresh. During the five years 1926–1930 an average of 64 per cent of the total production was dried, 28 per cent canned, and 8 per cent shipped fresh. In 1931, however, the proportions of the crop dried and shipped fresh were considerably above the 1926–1930 average, while the proportion canned was reduced. The low prices paid for canning apricots, together with strict grading, forced many growers who ordinarily sell most of their crop to the canners to seek other outlets.

Dried Apricots.—The greater part of the increase in the total production of apricots since 1921 has been reflected in an increased output of dried apricots. In 1921 and 1922 the annual output of dried apricots averaged 13,800 tons as against an average of 22,950 tons in 1929 and 1930. Preliminary estimates indicate that the dried output in 1931 was around 32,000 tons, the largest on record.

Prices of dried apricots in 1931 were the lowest since 1915. Packers' quotations on Choice grades for the six months, July to December 1931, average 8.4 cents a pound as against 11.4 cents in 1930 and an average of 16.6 cents during the five years 1926–1930. The low prices in 1931 as compared with previous years were partly the result of temporary conditions and partly the result of conditions which are likely to be more or less permanent. Supplies as large and demand conditions as poor as those of 1931 are not likely to prevail

during the coming years. On the other hand, the general price level will probably continue below the 1921–1929 average and the output of dried apricots, while not averaging as large as in 1931, is expected to be above the level of recent years.

Under the stationary general price level and the relatively favorable demand conditions which prevailed between 1922 and 1929 the upward trend in the output of dried apricots resulted in a downward trend in prices. In 1922 the output of dried apricots amounted to 15,500 tons and packers' quotations on Choice apricots averaged 23.6 cents a pound; by 1929 the output had increased to 22,104 tons and packers' quotations had dropped to 16.9 cents a pound.

Growers and packers of dried apricots are dependent upon foreign countries for a market for a considerable proportion of their output. During the past ten years one-half of the crop on the average has been exported. Our principal export markets are in Europe, mainly in Germany, Netherlands, Belgium, United Kingdom, Norway, and Sweden. These six countries combined have taken about 68 per cent of our total exports during the past three years, while other European countries have taken about 23 per cent. The present depression in Europe has been fully as severe as in the United States and the reduced buying power of consumers in those countries has resulted in a curtailment in the demand for dried apricots. In 1930–31, for example, total exports of dried apricots were about 500 tons smaller than in 1928–29 despite the lower prices which prevailed. The average export price last year was only 12.1 cents a pound as against 15.2 cents in 1928–29.

Canned Apricots.—The average price paid growers for canning apricots in 1931 was around $25 a ton as against $40 a ton in 1930. Prior to 1930 prices of canning apricots were relatively favorable. The average price for the nine years 1921–1929 was $61 a ton.

The pack of canned apricots increased substantially between 1921 and 1929. The average pack for the three years 1921–1923 amounted to 2,012,000 cases as against an average of 2,991,000 cases during the three years 1927–1929. In the past two years, however, the packs have been relatively small. The 1930 pack amounted to only 1,954,000 cases and the 1931 pack to only 2,006,000 cases.

The carryover on June 1, 1931 was 546,000 cases which, together with the 1931 pack of 2,006,000 cases, made a total supply available for shipment in 1931–32 of 2,552,000 cases. Shipments during each of the past three years, however, were larger than this amount. In 1930–31 they amounted to 2,597,000 cases, in 1929–30 to 2,988,000 cases, and in 1928–29 to 2,789,000 cases.

Although the supply of canned apricots available for shipment in 1931–32 is relatively small, the canners' opening prices were the lowest since 1916. The average opening price on all grades and sizes of cans in 1931 was equivalent to $2.90 a case. In 1930–31, canners received $3.35 a case and from 1926–27 to 1930–31 they received an average of $3.75 a case. Competition of other canned fruits with canned apricots has been particularly severe this season. Although the supplies of canned peaches, pineapples, and pears have not been unduly large as compared with those of recent years, the prices at which they are being sold are much lower. Consequently, it is necessary to sell canned apricots at low prices in order to induce consumers to buy even the relatively small supply which is available. An analysis of the factors which have affected the prices of canned apricots indicates that on the average a change of 10 per cent in the combined prices of canned peaches, pineapples, and pears, has been accompanied by a change of about 30 cents a case in the price of canned apricots. Thus the high prices of other canned fruits in 1929–30, resulting chiefly from the small pack of canned peaches, were mainly responsible for canners' being able to sell 2,988,000 cases of canned apricots in that year at an average price of $3.97 a case. During the coming years prices of other canned fruits are likely to average materially below the 1926–1930 level, and as a result shipments of canned apricots as large as the 1926–1930 average of 2,726,000 cases cannot be sold except at prices below the level of recent years.

From 1923 to 1928 the trend of demand for canned apricots in this country rose rapidly but during the past three years it has remained stationary. In the United Kingdom, our principal foreign market for canned apricots, there has been a small downward trend in the demand for canned apricots during the past seven years.

Although total shipments of California canned apricots increased substantially between 1923–24 and 1930–31, the volume exported declined. During the three years 1923–24 to 1925–26, exports averaged 657,000 cases annually, whereas during the past three years they averaged only 579,000 cases. In the former period 32 per cent of the total shipments were exported; in the latter period only 21 per cent.

Fresh Apricots.—Interstate shipments of fresh apricots in 1931 were the largest on record, amounting to 998 cars as against 617 cars in 1930 and an average of 438 cars for 1926–1930. The low prices paid for canning and dried apricots induced many growers to ship a part of their crop fresh. The returns on fresh shipments, however,

were very disappointing. The excessive supplies caused prices to break sharply. The f.o.b. prices of Royal apricots sold in New York and Chicago in 1931 averaged only $0.56 a crate, as against $1.22 a crate in 1930 and an average of $1.35 a crate for 1926–1930.

The experience of the past ten years indicates that with the present methods of harvesting, packing, and refrigeration eastern markets will afford an outlet for only a small quantity of fresh apricots at favorable prices. The necessity for handling fresh apricots quickly is an important reason why their distribution has been limited mainly to the few large auction markets. A doubling or tripling of the sales in these markets, even if it could be done without unduly depressing prices, would result in an additional outlet for only a small proportion of the total volume of apricots produced in the state.

CHERRIES

Further increases in the production of cherries in both California and the Pacific Northwest are to be expected as the present acreage comes into full bearing. While prices to growers may not be as low during the coming years as they were in 1931, they will probably average considerably lower than the level for recent years.

The 1931 crop of cherries in California was the largest on record, the total production being estimated at 23,000 tons. Weather conditions throughout the principal cherry-producing sections of the state were favorable to high yields per acre. The condition of the crop was 77 per cent of normal as against 59 per cent in 1930 and an average of 63 per cent for 1921–1930. As a result of the favorable growing and harvesting conditions the actual production in 1931 was 3,000 tons above the trend.

From 1921 to 1926 there was only a small rise in the trend of cherry production in this state, but since 1926 the rise has been rapid. During the past five years the average annual increase in trend of production has amounted to almost 1,000 tons a year as against only 200 tons a year during the previous five years. A further substantial increase in the trend of production is to be expected for the next few years. The available information indicates that only 50 per cent of the total acreage is full bearing, while 35 per cent is young bearing and 15 per cent nonbearing. The cherry tree is one of the longest-lived deciduous trees and consequently the decline in acreage as the result of old age is not likely to be sufficient to offset the increase in bearing capacity of the young trees.

In Oregon and Washington, the two other most important states producing sweet cherries, production has been increasing rapidly during recent years. Between 1923 and 1925, production in these two states averaged 14,700 tons a year, as compared to an average of 21,700 tons in 1928–1930. The crop in 1931 was reduced to 15,100 tons chiefly as the result of rains during harvest. In the coming years a further substantial increase in the trend of production is to be expected since much of the acreage has not yet reached full bearing.

Fresh Cherries.—California fresh cherries meet with little competition from those produced in other states. The shipping season in California begins the last of April and is practically completed by the middle of June. The shipping season in Oregon, Washington, and Idaho does not usually start until the second week in June. In 1931 about 93 per cent of the California crop had been moved to market before other states producing sweet cherries began to ship in carlots.

The trend of interstate shipments of California fresh cherries has been upward, rising from 570 cars in 1921 to 800 cars in 1931. Actual shipments in 1931 were much above the trend, amounting to 1,034 cars. The volume of California cherries sold on the New York auction market in 1931 amounted to 4,616 tons as against 3,172 tons in 1930. Sales of every important variety, with the exception of Royal Anns, were larger in 1931 than in 1930. The increases were particularly large in the case of Tartarians and Bings.

As a result of the large shipments, the decline in the general price level, and the depressed buying power of consumers, prices of California fresh cherries fell to the lowest point in many years. The average f.o.b. price per box of 8 pounds net in 1931 was $0.95 as against $1.66 in 1930 and an average of $1.69 for 1926–1930.

From 1921 to 1930 there was no downward trend in fresh-cherry prices despite the upward trend in interstate shipments. During this period the demand for California fresh cherries in the eastern markets kept pace with the increase in the supply. With the improvement in business conditions and employment in this country a substantial increase in demand from the present low level will occur, and during the coming years a further upward trend in demand is expected. There is no evidence, however, that the increase in the trend of demand after conditions again return to normal will be sufficient to offset the prospective increase in production.

Canned Cherries.—The Royal Ann cherry is the principal variety used for canning on the Pacific Coast. Royal Anns are also used in the manufacture of maraschino and glacé cherries and small quantities

are shipped fresh. As contrasted with fresh cherries, California canned cherries come in direct competition with those packed in the Pacific Northwest. Although there has been a downward trend in the pack of canned cherries in this state during the past decade, there has been a substantial upward trend in the Pacific Northwest. The increase in that section has more than offset the decline in California. The total pack of canned cherries of the Pacific Coast has increased about 18 per cent during the past ten years. The increase in the pack of canned cherries, however, has been small as compared with the increases in most of the other canned fruits.

From 1921 to 1930 the trend of demand for canned cherries increased about the same amount as the increase in the pack. Consequently there was no pronounced downward trend in prices paid to growers. The average price for canning Royal Anns during this period was 8.3 cents a pound. In 1931 prices fell to 4.0 cents a pound, the lowest in twenty years. Several hundred tons of Royal Anns in California were not harvested. Pacific Coast canners entered the 1931 season with a carryover from the previous year of 264,000 cases, over twice as large as the carryover a year earlier. As a result of the large stocks on hand, together with the hesitant market for canned fruits generally, canners did not buy freely even at the low prices. The 1931 Pacific Coast pack of canned cherries amounted to only 420,000 cases as against 1,100,000 cases in 1930. Thus the supply of canned cherries available for shipment in 1931–32 is materially below the actual shipments in 1930–31. How well the 1931–32 supply is moving into consumption is not known. It is probable, however, that the reduced buying power of consumers has retarded the demand for canned cherries more than it has for most other canned fruits. During the coming years canning may be expected to provide an outlet for a substantially larger volume of Royal Anns than were canned in 1931. It does not appear, however, that any large increase in the pack above that of recent years can be sold except at prices lower than those prevailing prior to 1931.

Maraschino Cherries.—The limited purchase by canners and the low prices received for fresh shipments encouraged the use of large quantities of Royal Anns for the manufacture of maraschino and glacé cherries in 1931. In recent years fully 75 per cent of the sulfured and brined cherries which the United States used in the manufacture of maraschino and glacé cherries were imported, mainly from Italy. In June, 1930, the import duty on cherries sulfured or in brine was raised from 3.0 cents a pound to 5.5 cents a pound with pits and to 9.5 cents a pound with pits removed. In anticipation

of this increase in the duty large quantities were brought into the United States during the months preceding the increase. In 1929–30 total imports amounted to 23,263,000 pounds as compared with an average of 15,915,000 pounds during the previous five years. Imports this past year were relatively small, amounting to only 9,143,000 pounds.

GRAPES

Further decrease in California grape acreage still seems advisable in spite of some reduction in acreage by abandonment or pulling during the past year and the serious damage to many vines that has resulted from drought and insect injury. Improvement in general business conditions and increased employment will tend to raise the demand for grapes during the next few years above that of 1930 and 1931. However, the prospect for a continuation of a low general level of prices for all commodities indicates that the present California grape acreage may reasonably be expected, with yields per acre average or better, to produce more grapes than can normally be sold at prices as high as the average of the last four years. Unless, therefore, many growers can produce at a considerably lower cost per ton than in recent years, further curtailment of acreage and production is necessary.

Decreases are needed in all three classes of grapes—wine, table, and raisin. Relatively the greatest reduction should take place in wine grapes because normal production is much too large and the demand for this class of grapes has declined. Table-grape vineyards normally producing low-grade grapes should also, as a rule, be uprooted. Normal yields from our present acreage of raisin grapes will still produce a surplus of raisins, for supply and price competition from foreign raisins in export markets will continue to be very severe.

Lack of water, excessive summer heat, vine hoppers, and red spiders —not lack of bearing acreage—played the leading rôle in reducing the 1931 California grape crop to the smallest since 1921. December preliminary estimates of 1,287,000 tons for 1931 are 40 per cent below the 1930 state crop of 2,181,000 tons and the condition of the 1931 crop was almost 40 per cent below the ten-year average. In comparison, the 'short' crop of 1929 of 1,827,000 tons was only about 20 per cent below the ten-year average.

Shipments of fresh grapes from the state amounted to only about 36,800 carloads in 1931, or approximately 470,000 tons, as compared

with 60,900 carloads in 1930 and 56,250 in 1929. Although eastern grape production was unusually large, the supply of California grapes shipped East was so small that our table-stock shipments brought higher prices in eastern markets than in 1929 in spite of the low general price level and the reduced purchasing power of consumers. The same was true of fresh Muscats. Demand for black wine grapes, however, was so poor for the early shipments that the season's average price was only about the same as in 1930, in spite of the fact that interstate shipments of these grapes in 1931 were 42 per cent less than in 1930.

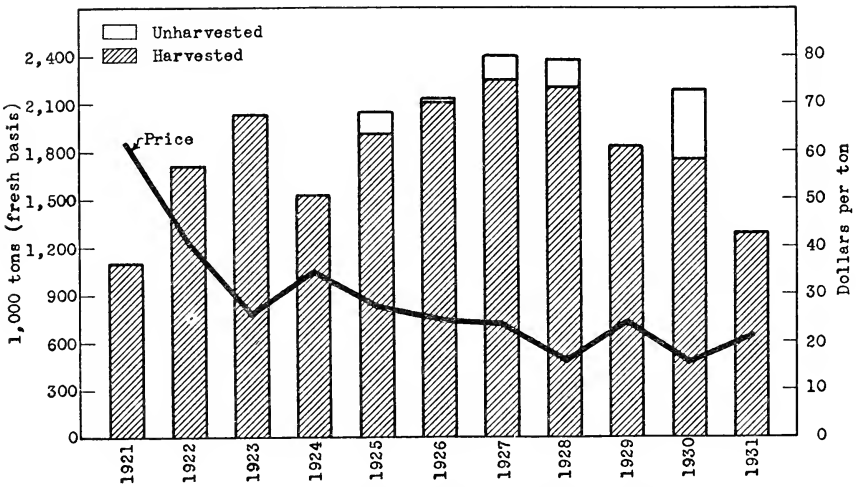

Fig. 3.—Production and farm price of grapes in California.

The carryover of California raisins on September 1, 1931, and the tonnage dried from the 1931 crop were both considerably smaller than for 1930 so that the supply of California raisins available for the 1931 marketing season appears to be about 220,000 tons, or about 65,000 tons less than in 1930. Raisin prices to the trade to date have been considerably higher than a year ago even though demand conditions both at home and abroad now appear to be more unfavorable than a year ago.

Raisin Grapes.—Although California raisin-grape acreage has been declining for several years, a further decrease is needed because normal yields per acre or better from the present acreage will still result in unprofitable surpluses. Raisin surpluses are particularly serious because very large crops ordinarily return growers less money than medium or small crops. Moreover, competition at least as keen as in recent years is to be expected from foreign raisins in Canada

and overseas markets. An increase in the Canadian import duty on California raisins of 1 cent per pound now gives raisins from Australia and South Africa, on which there is no duty at all, a 4-cent preference in the Canadian market. Until recently Canada normally consumed 15,000 to 20,000 tons of California raisins each year.

Because of large world crops of raisins and currants, California raisin prices have been at a relatively low level since 1922. In no year since 1922 have growers received an average of as much as 4 cents a pound. In six of the past ten years they have received 3 cents a pound or less, and the average for the last eight years is only about 3 cents. Growers' returns for 1930 averaged nearly 3 cents but may average somewhat higher for the 1931 crop as a result of the small crop both at home and abroad. If wholesale prices of all commodities remain at somewhere near the present low level, growers may find that the average of recent years is about as much as they can normally expect for their raisins even with further reduction in acreage and normal production. At the present general price level, 3-cent raisins are more than the equivalent in purchasing power of 4-cent raisins during the years 1921 through 1929.

Raisin-grape production in California approximately doubled from 1919 to 1928, reaching an average of over 1,400,000 tons in 1927 and 1928. Yields nearly 20 per cent below the ten-year average reduced the crop to 1,098,000 tons in 1929. With yields per acre about 5 per cent above the average, the 1930 crop rose to 1,307,000 tons, indicating slightly more than the normal tonnage to be expected from the present acreage. Yields in 1931 were approximately 40 per cent below average with production estimated at only 729,000 tons.

The dried output of California raisins rose from an average of about 180,000 tons ten years ago to a peak of 300,000 tons in 1927, averaging 285,000 for the three years 1926–1928. The quantity of raisins dried amounted to 215,000 tons in 1929, and to 192,000 tons in 1930. However, 270,000 tons of raisins could have been dried in 1930 if the large tonnage bought by the Grape Control Board and left on the vines had all been dried. Approximately 157,000 tons is the preliminary estimate of the 1931 raisin output of the state, or the smallest crop since 1921.

The big increase in California raisin production since the War was accompanied, until 1929, by a rapid and steady growth in the tonnage actually sold for foreign and domestic consumption as raisins (exclusive of by-products). Consumption, however, failed to increase as rapidly as production in spite of drastic price declines. Total sales rose from about 155,000 tons, sweat-box basis, in 1921 to 290,000 tons

in 1928, the peak year of sales, and then declined to 215,000 tons in 1929 and approximated 220,000 tons in 1930.

In no year since 1922 has the state carryover of raisins on September 1 been less than 59,000 tons and as late as 1928 it amounted to 124,000 tons. In the fall of 1929, 307,000 tons of old and new-crop raisins were available, and sales during the crop year 1929–30 amounted to about 215,000 tons only. A carryover of about 92,000 tons, therefore, existed on September 1, 1930, raising the available supplies for the 1930–31 marketing season to about 284,000 tons, even with the big reduction in tonnage dried through control measures. With a September 1, 1931, carryover estimated at about 60,000 tons in California and the small 1931 crop, there appears to have been, roughly, 220,000 tons of California raisins available at the beginning of the 1931–32 marketing season. Total shipments from September 1 to December 31, 1931, have been about the same as during the corresponding period of the 1930–31 marketing season, but during the month of December shipments were considerably smaller than those of a year ago, largely because of the decrease in foreign demand that has taken place since English exchange broke.

In recent years California raisins have met severe competition from foreign raisins in overseas markets. Production of raisins in Australia, Turkey (Smyrna), Spain, Greece, and Crete, which averaged only about 85,000 tons during 1921–1923, amounted to 142,000 tons during the three years 1928–1930. Preliminary estimates for 1931 are about 121,000 tons. Foreign production of currants has also been increasing. The currant output of Greece and Australia increased from an average of 131,000 tons in the years 1921–1923 to 164,000 tons for 1928–1930, with preliminary estimates of about 105,000 tons for 1931. Normal production and exports of raisins and currants of these countries will probably continue to be about as large as in recent years and some additional competition from Russian and Persian raisin exports to European markets may likewise be expected.

For several years previous to 1929 foreign prices, particularly those for Australian raisins, were artificially held several cents a pound higher than California raisins in the United Kingdom, which helped California to treble exports in less than ten years. Overseas shipments of 96,600 tons, sweat-box basis, in the peak year 1928–29, constituted one-third of the total California sales during that crop year. Since the summer of 1929, however, foreign-produced raisins have sold at about as low a price as California exports and, largely as a result of this fact, California overseas exports have declined

greatly. Only 52,200 tons (sweat-box basis), or 24 per cent of California raisin shipments, were exported to overseas markets during the crop year 1929–30, and in 1930–31, 54,800 tons, or 25 per cent of our shipments for the crop year beginning September 1. Since foreign supply and price competition is likely to be keen for several years. California will probably find that future export sales average much nearer those of 1929–30 and 1930–31 than those of 1928–29.

The Raisin Pool returned almost 3 cents a pound ($59.50 per ton) to growers for their 1930 Thompson Seedless raisins. Final payments have not been made on Muscats, but Pool prices to packers during the 1930–31 marketing season averaged about $3.00 a ton less for them than for Thompson Seedless raisins. The demand for Muscat raisins in recent years has fallen below the demand for Thompson Seedless and the prospects are that the price will continue to average below that for Thompson Seedless. The first advance to growers by the Pool on 1931 raisins was approximately 2½ cents a pound, or practically the same as its first advance on the 1930 crop. However, the short California and world crop has led the Pool to raise Thompson prices to packers about ¾ cent above the price of a year ago. Although California shipments since September 1, 1931, have been about as heavy as in the same period a year ago, the business situation, particularly in our best European markets, is unfavorable to a continuation of this rate of movement at the present level of California raisin prices.

Yields per acre of Muscat grapes were reduced more by the extreme summer heat in 1931 than those of any other variety except Tokay. This fact, together with early maturity in the face of sluggish demand in the East, caused growers to dry a larger proportion of their Muscats than usual. The result was the lightest interstate movement of fresh Muscats in ten years. Less than 2,800 cars were shipped out of the state as compared with an average of nearly 8,300 carloads in 1929 and 1930 and of nearly 14,300 cars in 1927 and 1928. Making allowance for the low general price level, eastern demand for fresh Muscats was about up to that of other recent years and hence, with very light supplies, prices for the season averaged the highest since 1922. The average of the eleven eastern delivered-auction markets was $1.16 per lug through November 14, 1931, as compared with $1.06 in 1930 and $1.08 in 1929. In view of the excellent returns from fresh Muscats in 1931, care should be exercised not to reverse the situation in 1932 by glutting eastern markets and returning 'red ink' to Muscat shippers.

Wine Grapes.—With yields per acre equivalent to the average in recent years, the present bearing acreage of California wine grapes will produce crops large enough to hold prices even below the low average for the years 1928, 1930, and 1931, if anything like the present low level of all commodity prices continues to prevail. Although there has been a slight decline in bearing acreage during the last three years and some vines have been injured by drought and insect pests, normal crops from the present acreage are still not likely to be much smaller than the 1930 crop of 486,000 tons. Not only is present acreage and normal production excessive, but eastern demand for wine grapes has decreased in recent years and is not likely to regain its former position.

Judging by the trend of recent years, the price outlook for early-maturing wine grapes, such as Alicante Bouschet, is especially unfavorable and hence reduction in acreage and production of early wine grapes appears to be a logical conclusion. Custom as well as temperature conditions usually delay wine making in the East until some time in October. The fact that consumers in recent years have frequently been able to buy juice grapes late in the season at lower prices than if they had purchased them earlier has also been an important influence in reducing the demand for early shipments. Since the most active demand for juice grapes comes during the latter part of the shipping season it is highly important that proper adjustment in production and shipping be brought about to eliminate unprofitable early shipments.

Previous to 1927 black wine-grape varieties commanded considerably higher prices than table grapes in eastern markets. During the past four seasons, however, as a result of large crops and decreased demand, they have averaged less than table grapes. With interstate shipments of about 14,000 carloads of wine grapes in 1921 the eastern auction price of black-juice varieties averaged $2.40 per lug, with interstate shipments of 27,200 carloads of black-juice stock in 1930, prices averaged $1.07 per lug. In 1931, although shipments fell to 15,800 carloads, prices averaged only $1.08 per lug. Even after making allowance for the increased purchasing power of money, demand for black-juice grapes in 1931 was by far the lowest since the War.

Yields per acre of California wine grapes in 1931 were about 32 per cent below the ten-year average with production estimated at only 337,000 tons, or about 150,000 tons less than the bumper crop of 1930. The 1929 crop of 417,000 tons was a short one but the crops of 1927 and 1928 were both large, averaging 477,000 tons.

Table Grapes.—Making allowance for the increased purchasing power of money, it appears that eastern demand for California table grapes in 1931 was about the same as in recent years. The big improvement in prices over the 1930 average was, therefore, primarily due to the abnormally short crop and very light shipments. With yields per acre average or better, the present table-grape acreage in the state is still great enough to produce surpluses that will hold prices below the low average of recent years, unless the general level of all prices rises substantially.

Including Thompson Seedless, prices of table grapes in eastern delivered-auction markets averaged $1.43 per package during 1931, or about 1 cent above the 1929 average and 26 cents above the record post-war low price of 1930. Tokay shipments, relatively the lightest of any variety, brought an average of $1.64 per package for table stock in 1931 as compared with $1.42 in 1929 and $1.15 in 1930. Thompson Seedless, which has gained considerable favor as a table grape in recent years, averaged $1.53 per package in eastern markets as compared with $1.48 in 1929 and $1.28 in 1930. All Malagas averaged $1.23 per package, with juice stock $0.94 and table stock $1.33. The average price per package in 1930 was only $1.08.

Table-grape yields per acre in California in 1931 were 35 per cent below the ten-year average and 40 per cent below 1930 yields. The preliminary estimate of 1931 production is only 221,000 tons as compared with 388,000 tons in 1930 and an average for the four years 1925–1928 of approximately 450,000 tons of which only about 82 per cent or 370,000 tons were harvested.

Shipments of table stock (including Thompson Seedless) from California during the 1931 season amounted to only about 16,000 cars as compared with 22,500 cars in 1930, 20,300 in 1929, and an average of 26,200 for the peak years of 1927 and 1928. Interstate shipments of Malaga table stock have been declining for several years; only 3,900 carloads moved in 1931 as compared with 4,190 in 1930, 4,680 in 1929, and an average of 6,310 carloads for the period 1927–1929. Induced by favorable Muscat prices, shippers became interested in juice Malagas early in the 1931 marketing season. As a result nearly three-fourths as many carloads were shipped as in 1930. Shipments amounted to nearly 1,800 cars in 1931 as compared with 2,480 carloads in 1930, 2,010 in 1929, and an average of 1,725 for the years 1927–1929. The drastic reduction in Tokay yields in 1931 is indicated by interstate shipments of only 4,100 cars as compared with 7,700 in 1930 and an average of about 6,600 cars in the years 1927–1929.

PEACHES

Clingstones.—If yields per acre in 1932 are average or above, the production of No. 1 canning clingstone peaches will be sufficient to result in relatively low prices. Over a period of years, however, there should be a gradual improvement in the position of the clingstone-peach grower. The downward trend in production, which is already under way, and the increase in demand which is expected to develop within the next few years will result in higher prices to growers. Commodity prices for both living purposes and production

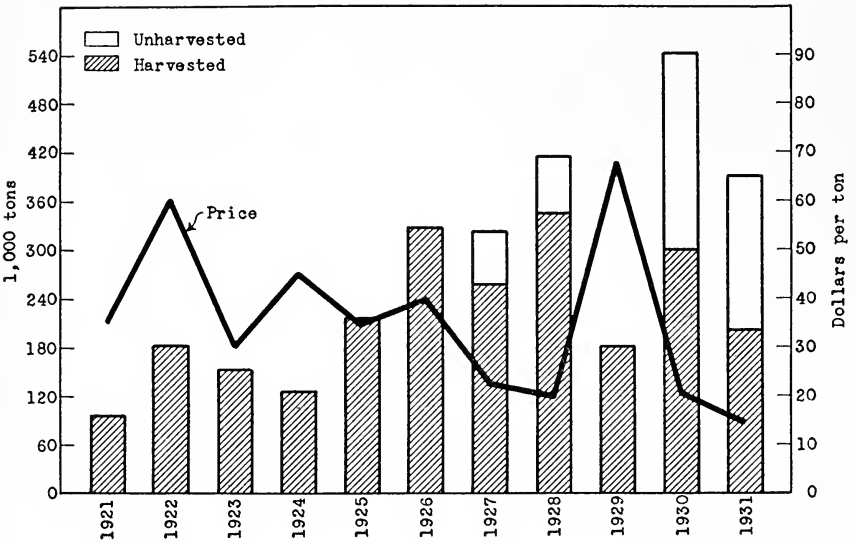

Fig. 4.—Production and farm price of clingstone peaches in California.

purposes will tend to come more closely in line with the general price level, thus reducing the spread between the prices growers pay and the prices they receive.

The enormous increase in production of clingstone peaches in California during the past decade resulted in a marked downward trend in prices to both canners and growers. The decline in prices did not become serious, however, until 1927. From 1921 to 1926 the demand for canned peaches was increasing rapidly, which largely offset the increases in production. Since 1927 the trend of demand has increased only slowly, but production continued upward. Consequently prices dropped to unprofitably low levels.

With the marked drop in prices in 1927 the industry instituted a number of policies designed to limit the pack. For the past five

years with the exception of 1929 when the crop was very short, only No. 1 fruit of the Tuscan, Phillip, and New Midsummer varieties has been canned. In 1930 and 1931 large quantities of No. 1 fruit were purchased and left on the trees. Had this not been done, prices paid growers in these two years would have been considerably lower than they were.

The difficulties in the clingstone peach industry arising from the large increase in production have been greatly accentuated during the past two years by the low level of buying power of consumers resulting from the decline in business conditions and employment both in this country and abroad. In 1930–31 the demand for canned peaches in the United States was 12 per cent below that of 1929–30. Demand conditions in 1931–32 are even more unfavorable than in 1930–31. However, an increase in the demand for canned peaches from the present low levels is to be expected within the next few years as business conditions and employment improve. The rate of recovery in the demand, however, is likely to be retarded by the increasing competition of other canned fruits, particularly pineapples and pears. It may be several years before the demand for canned peaches is again as large as it was in 1929–30.

Production of clingstone peaches in California has definitely passed the peak and is now declining. Low prices have resulted in cessation of plantings and the removal of about 12,500 acres during the past two years. If yields per acre are average, the production of No. 1 canning clingstone peaches north of the Tehachapi in 1932 is expected to be around 324,000 tons as against a normal production of 340,000 tons in 1931. The actual production in 1931 was much below normal, amounting to only 266,300 tons, but in 1930 the crop was considerably above normal, amounting to 425,400 tons.

How rapidly the trend of production will decline in the next few years depends upon the number of trees removed and the care given to orchards. The bulk of the clingstone-peach trees in the state are still relatively young. In 1930 about 80 per cent were less than eleven years of age. Since the average life of a peach tree in California is about twenty years, it will be a long time before the acreage is materially reduced as a result of normal removal. Continued low prices, of course, will cause many orchards to be taken out before the normal old age limit is reached, and in addition will cause growers to economize on cultural practices which will tend to result in reduced yields per acre. Thus the present surplus situation will eventually correct itself. The time required to bring production more nearly

in balance with demand could be greatly shortened, however, if the industry would adequately compensate growers for removing their peach trees.

The recent decline in the general price level was a contributing factor to the low returns received by peach growers in 1931. In sympathy with the marked drop in prices of all commodities during 1930 and 1931, prices of canned peaches also declined. Costs of canning and producing peaches, however, did not decline as rapidly. Consequently there was a widening of the spread between the prices growers received for canning peaches and the prices they paid for other commodities.

Exports of canned peaches have been adversely affected by recent developments in the United Kingdom which is our most important foreign market for canned fruits. The present depression is world-wide and the buying power of consumers has declined fully as much in the United Kingdom as in this country. In addition, the United Kingdom went off the gold basis in September, 1931 and the resulting decline in the value of the English pound sterling in terms of United States dollars has tended to restrict exports to that country.

In the United Kingdom, California canned peaches meet considerable competition from those produced in Australia. Production of peaches in Australia has increased substantially during recent years. Indications are, however, that the peak of production in that country has been reached, and that some decrease is in prospect during the next few years.

Freestones.—As contrasted with the rapid increase in the production of clingstone peaches, the production of freestone peaches in California has declined. All of the decline thus far, however, has been in freestones used for canning. The output of dried peaches and the shipments of fresh peaches have remained at approximately the same levels. If the downward trend in total production continues, however, and present indications are that it will, the output of either dried or fresh peaches or both will tend downward.

About 90 per cent of the total acreage of freestone peaches in California in 1929 was in bearing and only 10 per cent was non-bearing. Furthermore, 64 per cent of the total acreage in that year was eleven years of age and over. During the next few years a considerable proportion of this acreage will normally go out of bearing. Plantings of freestone peaches in the past few years have not been sufficient to offset this prospective decline. The decrease in production is likely to be most rapid in the principal drying varieties.

During the past ten years exports of dried peaches have averaged about 15 per cent of the total production. There has been no definite upward or downward trend in the proportion of the crop exported. For many years Canada, Germany, and the United Kingdom have been our most important export markets.

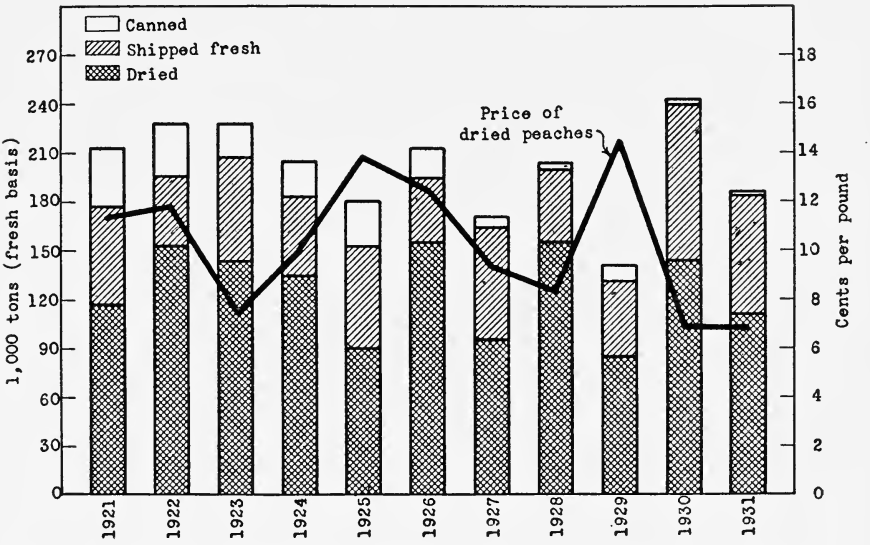

Fig. 5.—California production of freestone peaches by uses, and prices of dried peaches received by packers.

Prices of dried peaches, unlike the prices of most deciduous fruits, experienced no downward trend during the past decade. Prior to the pronounced decline in business conditions and employment the demand for dried peaches was fairly constant. Production had not increased and consequently prices had not declined. With the recovery from the present low level of demand and with the prospect of a downward trend in production within the next few years, the outlook for dried peaches is favorable.

From 1921 to 1926 production and shipments of fresh peaches in the United States increased rapidly. Since 1926 there has been a gradual decline. Virtually all of the change in the trend of United States production during the past decade occurred in the southern states. Indications are that the trend of production in that section will continue downward during the next few years. In 1929 only 28 per cent of the peach trees in the four states of Georgia, North Carolina, South Carolina, and Arkansas were less than six years of age, while 54 per cent were from six to nine years of age. This latter group of trees has now reached the age of maximum production and

will soon be declining in productivity since the average commercial life of a peach tree in the southern states is only thirteen to fifteen years. The trend of production in all other states combined has neither increased nor decreased during the past decade, and the available information does not point toward any material change in the trend for the next few years.

When the peach crop in other states is large, as it was in 1931, markets for California fresh peaches are greatly restricted. On the other hand, when the peach crop in other states is small, as it was in 1930, California growers are able to expand their interstate shipments materially. During the coming years eastern markets may be expected to afford an outlet for a substantially larger volume of California fresh peaches than they did in 1931. Peach production in other states will average below the unusually large crop of that year. With the recovery of business conditions in this country, the buying power of consumers will increase which will improve the demand for fresh peaches.

PEARS

Prospective bearing acreage of pears on the Pacific Coast is so large that further increases in normal production, both of Bartletts and of late varieties, may be expected unless blight, black-end or some unexpected factor takes unusually heavy toll from the industry. Excessive production of pears and other important competing fruits, together with the low general level of all-commodity wholesale prices that is likely to prevail for several years, will probably result in a normal price per ton to growers no greater than the average of the last two years for Bartletts and probably even lower for most late varieties, even though the demand for pears be raised somewhat during the next few years by improved business and employment conditions and by concerted constructive efforts upon the part of the industry. In addition to better merchandizing methods, particularly for late pears, the industry needs to adopt orchard practices to reduce the production of low grade, small-sized pears, together with effective market regulations to eliminate inferior pears from all market channels—fresh, canned, or dried.

Prospects for any substantial improvement in foreign demand for some time are uncertain but in general discouraging, considering foreign business and employment conditions in general, the adverse exchange situation, and the retaliatory tariffs and import restrictions our products are encountering in many countries. Because of the

vital significance of the foreign demand situation upon the market outlook for both fresh and canned pears, a reading of the special discussion of this matter as presented in the first few pages of this report is advisable.

Fortunately nature reduced the 1931 Pacific Coast pear crop nearly 25 per cent below the crop of 1930 so that by keeping cull fruit off the market, average returns to growers were somewhat better than in 1930. The canning price, however, was only about $20 a ton as compared with $30 in 1930. The low canning price was more than offset by the increased price received for Bartlett sales in eastern markets in 1931.

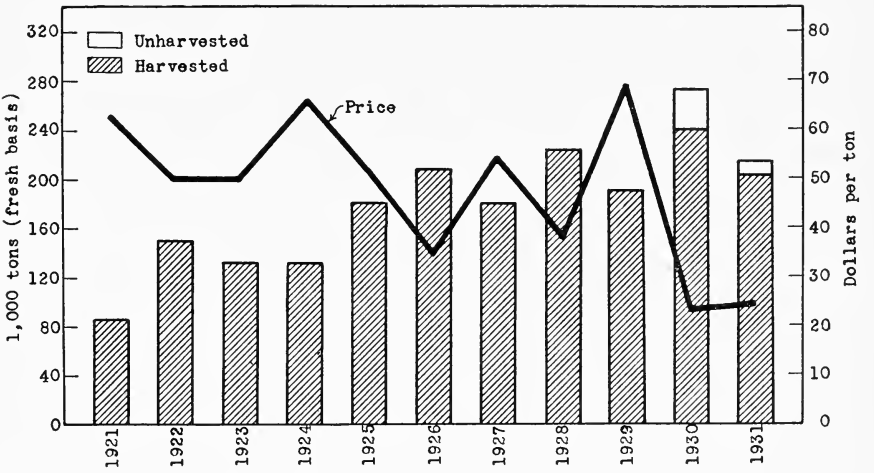

Fig. 6.—Production and farm price of pears in California.

California pear production in 1931 amounted to approximately 214,000 tons, of which it is estimated 11,000 tons were unharvested. This compares with a crop of 272,000 tons in 1930, of which about 31,000 tons were unharvested, and an average production of 200,000 tons for the three years 1927–1929. United States production in 1931 was about 552,000 tons, or approximately 10 per cent less than in 1930. California tonnage was about 39 per cent of the national crop in 1931 and the output of the three Pacific Northwest states—Oregon, Washington, and Idaho—about 25 per cent. The production of these three states together with California's was 351,000 tons in 1931 as compared with 458,000 in 1930.

Bartletts now constitute about three-fourths of Pacific Coast pear production. In California this one variety contributes about 88 per cent of the crop, in the Pacific Northwest roughly 55 per cent. In

recent years about 53 per cent of the California pear crop has been shipped for fresh consumption, about 34 per cent has been canned and 13 per cent dried. About two-thirds of California interstate shipments are Bartletts and all of the commercial tonnage utilized for canning and drying. Practically no Bartletts are dried elsewhere in the United States. Commercial canning of this variety is usually confined to the Pacific Coast, which also supplies the majority of the fresh Bartletts consumed in the United States.

Canning Bartletts.—The Bartlett canning industry on the Pacific Coast has grown so rapidly that the average pack of slightly over 4 million cases during the last three years has amounted to three times the normal pack just after the war. The output of Oregon and Washington has increased even faster than in California. In 1919 only about 25 per cent of the pack originated in the Northwest, as compared with approximately 50 per cent in recent years. California packed 1,895,000 cases of Bartletts in 1931; Oregon and Washington a total of approximately 1,881,000 cases. About 96,000 tons of fruit were utilized in packing this total of 3,776,000 cases, or approximately 45 per cent of the Pacific Coast Bartlett crop. It is roughly estimated that about one-fourth of the 1931 California Bartlett crop and between 60 and 65 per cent of the Oregon and Washington Bartlett crop was canned.

Slightly over 20 per cent of the 1930 pack of Pacific Coast canned Bartletts was still on hand on June 1, 1931, so that with a 1931 pack of 3,651,000 cases (equivalent of 24 number 2½ cans) the total supply available for sale in the 1931–32 marketing season amounted to 4,544,000 cases or nearly 10 per cent more than was sold by the canners in 1930–31 at an average of $3.48 a case, the lowest season's average of the past ten years. With such a large carryover on June 1, 1931, a plentiful and low-priced pack of peaches, pineapples, and apricots to compete with, depressed economic conditions and a low general price level both at home and abroad, California growers received an average of only about $20 a ton for canning Bartletts, even though the Pacific Coast pear crop was nearly a fourth smaller than in 1930 and the canned pack about 13 per cent smaller. The records indicate that this is the lowest price paid for canning Bartletts in California in 25 years.

Not only will the supply of Pacific Coast Bartletts, available for canning for several years, be normally about as large as in 1930, but the demand for canned pears in the United States may be expected to increase only slightly over what it has been during the last three

years, even with improvement in business and employment conditions. Increased demand for canned Bartletts, moreover, is likely to be retarded by continued severe competition from large supplies and low prices of other canned fruits, particularly peaches and pineapples. Demand for canned pears in the United Kingdom, our most important foreign market, is likely to be as low as in recent years, unless the purchasing power of its people increases faster than is generally anticipated. The decline in foreign exchange rates which has occurred during the last five months in the United Kingdom and a number of other important foreign countries is a distinct handicap to California's export business, as the net effect is to reduce our export sales unless our prices are lowered substantially.

With prospects, under normal conditions, of a continuation of Pacific Coast Bartlett crops about as large as in 1930, and considering competition from other fruits and the general outlook for demand and for the general price level both at home and abroad, it appears that the price of canning Bartletts in years of normal production of this fruit and of competing canning fruits may reasonably be expected to be about as low as in 1931.

Fresh Bartlett Shipments.—Fortunately, most of California fresh Bartlett shipments usually reach eastern markets by the first of September and are sold before arrivals from Oregon and Washington, our earliest competitors of importance, become large. They do, however, compete with summer fruits, especially peaches. Annual rail shipments of pears from California before the middle of September, which are a good index of the Bartlett movement, have more than doubled since 1921. The trend of such shipments rose from 4,000 carloads in 1921 to about 9,500 in 1931, an increase of approximately 140 per cent. Actual shipments from the state for the season through September 15, 1931, were 7,200 carloads as compared with 9,700 for the corresponding period of the 1930 shipping season.

Largely because of a substantial growth in eastern demand for California Bartletts, the rapid increase in shipments has been accompanied since 1921 by a decline of only about 10 per cent in the trend of the New York delivered-auction price. Considering the low level of all-commodity wholesale prices during the last two years, the average New York auction price of $2.60 a box in 1931 and of $2.37 in 1930 are close to the trend. Decreased shipments of small and low grade fruit to eastern markets in 1931 as the result of general agreement among California shippers and growers, as well as a short crop, had much to do with prices being substantially higher than in 1930.

Since prospective increases in production indicate that the upward trend in California Bartlett shipments will continue, it behooves the industry to use every feasible method to eliminate small and low grade fruit from eastern markets, in fact, from all markets—fresh, canned, or dried.

Even if demand for California fresh Bartletts is maintained or slightly increased, prices in eastern markets for several years may normally be expected to average about as low as in 1930. Normal crops of California Bartletts may continue to be about as large as in 1930. Competition from heavy supplies of other fruits will be the general rule and the general level of wholesale prices of all commodities is likely to remain below the 1921–1929 average for some years.

Late Varieties.—About 15 per cent of the California pear acreage is planted to varieties other than Bartletts. With the major exception of Hardys, most of these varieties, unlike the California Bartletts, are not shipped or consumed in the summer and hence are usually spoken of as late pears. They are not canned commercially but are practically all consumed in the fall and winter months and hence are frequently designated as fall and winter pears. Most of these pears are shipped after the middle of September. Hence, unlike California fresh Bartletts, they compete with eastern pears and with the rapidly increasing production of late pears from Oregon and Washington. Nearly half of the pear acreage in these two Pacific Northwest states is now planted to late varieties.

The percentage of late pear trees still to come into full bearing is larger than for Bartletts both in California and in the Pacific Northwest, indicating that the production of these varieties on the Pacific Coast will increase at even a greater rate than Bartletts for several years to come. Approximately half of the late-pear acreage on the Pacific Coast is either of nonbearing or of light-bearing age and, in California alone, about 75 per cent has still to reach the age of full bearing. Unless something very unexpected happens, it appears, therefore, that a further rapid increase in the upward trend of late pear production on the Pacific Coast will take place for a number of years.

Production has already increased so much that rail shipments of late pears from the Pacific Coast in 1930 were about four times as great as ten years before, and the prices were so low that many growers received only 'red ink' from consignments to eastern markets. Better prices in 1931 resulted primarily from light shipments caused by an abnormally short crop on the Pacific Coast. Since 1921 the premium in favor of some of the best late varieties on eastern

markets has shrunk to nothing and it appears that in the future large crops may sell for even less than Bartletts. In fact, unless a tremendous and unexpected improvement in the market situation for late pears is quickly brought about by the concerted effort of the industry, the large normal crops in prospect can not all be marketed except at prices so low that they will return many growers nothing whatever for their time or investment.

PLUMS

The peak in the upward trend of plum production in California will probably be reached within the next few years. At that time demand conditions throughout the consuming markets of this country are likely to be materially above the present low level. The prospective increase in demand will probably be more than sufficient to offset the probable increase in production. Consequently, prices during the coming years are expected to average above those prevailing in 1931. They are not likely to be as high, however, as the 1921–1930 average.

The 1931 crop of plums in California amounted to 65,000 tons as compared to 82,000 tons in 1930 and an average of 63,000 tons for 1926–1930. During the past decade there has been a substantial increase in the trend of plum production in this state. The trend of production rose from 42,000 tons in 1921 to 65,000 tons in 1931, an increase of 55 per cent. A further increase in the trend of production is to be expected within the next few years, but it is not likely to be as large as that which has occurred. About 75 per cent of the plum acreage in California is now in full bearing while about 19 per cent is young bearing and 6 per cent nonbearing. The increase in the bearing capacity of the young trees will probably be somewhat greater than the decrease in the bearing capacity of the old trees since the normal life of a plum tree is about forty years.

Although plums are produced in other sections of the United States, particularly in the Pacific Northwest, they do not compete seriously with California fresh plums, the bulk of which are shipped during the three months of May, June, and July. During this period there are virtually no shipments from other states. By the time their shipments become heavy California fresh plums are practically out of the markets.

There has been a marked upward trend in the shipments of fresh plums from California during the past ten years, rising from about 3,100 cars in 1921 to about 4,800 cars in 1931. Actual shipments in

1931 were materially below the trend, amounting to only 3,967 cars. The upward trend in shipments prior to 1931 did not result in a downward trend in prices. Prices from 1921 to 1930, although fluctuating widely from year to year, experienced no definite upward or downward trend. During this period the demand for California fresh plums kept pace with the increase in shipments. In 1931, however, the demand for fresh plums was sharply reduced as a result of the decline in business conditions and employment throughout the country. This reduction in demand, together with the decline in the general price level, resulted in the lowest plum prices since 1923. The average f.o.b. price of the eleven most important varieties in 1931 was $0.75 a crate as against $0.88 a crate in 1930 and an average of $1.09 a crate for 1921–1930. During the coming years the level of plum prices is expected to be above that of 1931. Although interstate shipments will probably average higher than in 1931, a substantial increase in demand from the present low level will occur as business conditions and employment improve. Prices in the coming years cannot be expected to return to the 1921–1930 level, however, even though the demand should be as good and the supplies as small as prevailed during recent years. The general price level is now materially below that which prevailed during the past decade, and while some increase may occur within the next few years it will probably be small as compared with the drop during 1930 and 1931. A part of the prospective decrease in gross returns as compared with the 1921–1930 average, however, will be offset by a decrease in the costs of producing plums. Prices of commodities that farmers use for both consumption and production were about 20 per cent lower in 1931 than the 1921–1929 average.

A small quantity of California plums is canned each year, amounting on the average to approximately 5 per cent of the crop. There has been no increase in the canned pack in this state during recent years. In the Pacific Northwest, however, there has been a material increase in the canned pack of plums and prunes. Prices of canned plums, in sympathy with the prices of other canned fruits, have declined during the past five years. With continued keen competition from other canned fruits it does not appear that canning will afford an outlet for any substantial proportion of the crop.

PRUNES

World production of dried prunes appears to have reached a peak. Full-bearing acreage on the Pacific Coast has about reached its maximum, and normal production in Europe is not likely to increase substantially in the near future. In California, which produces about 80 per cent of the average commercial dried-prune crop of the world, approximately 82 per cent of the prune acreage is now thirteen years old or older, about 15 per cent from seven to twelve years of age, and only 3 per cent from four to six years of age. The acreage situation is somewhat similar in the Pacific Northwest. For a number of years, therefore, whenever yields per acre are average or better on the Pacific Coast, low prices may be expected. Although improvement in general business conditions and increased employment will tend

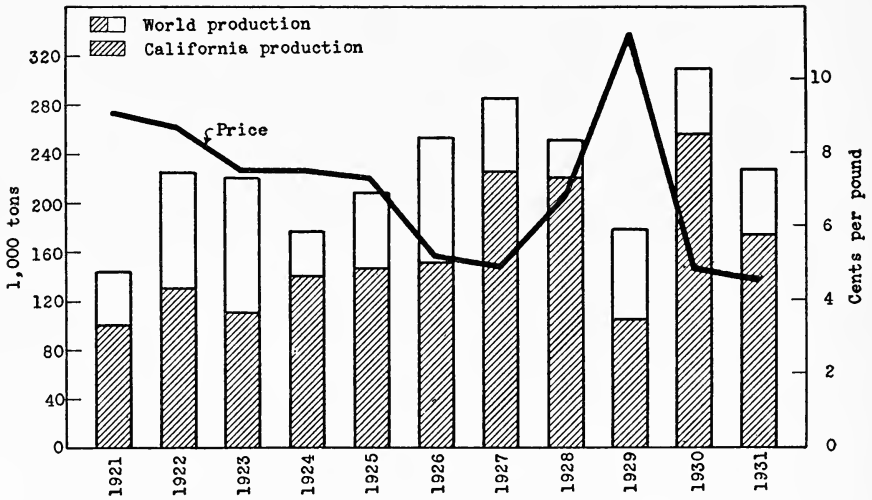

Fig. 7.—World production of prunes, and price paid California growers for 40/50's.

to raise the demand for prunes during the next few years above that of 1930 and 1931, the prospect for a continuation of a low general level of prices for all commodities indicates that world prune crops, average or above in size, may reasonably be expected to bring prices lower than the 1925–1928 average.

General economic conditions have been so adverse that prices for the 1931 crop of prunes have been lower than a year ago in spite of the fact that the world commercial crop is estimated to be about 30 per cent less than that harvested in 1930. This abnormally low price

for prunes has been brought about by several factors. There has been a substantial decline in the general level of all prices since 1930. Moreover, the continued business depression and prolonged unemployment has seriously curtailed demand. The sudden drop from the gold standard of the English pound sterling and the currency of several other European countries within the last five months, also upset a number of our export markets. In addition, a considerable carryover of 1930 prunes substantially increased the supply of prunes available during the 1931–32 sales year.

Prolonged, abnormally high temperatures in many prune-producing areas during the past summer were chiefly responsible for a reduction in the 1931 California prune crop of approximately 35 per cent below the exceptionally large crop of 1930. The preliminary state estimate for 1931 is 173,000, as compared with a bumper crop of 267,000 tons in 1930 (of which approximately 13,000 tons were unharvested), 103,000 tons in 1929, 220,000 in 1928, and 225,000 in 1927.

During the last five years the state's three largest prune crops have averaged 1.4 tons per bearing acre, which is considerably above the ten-year average of 1.1 tons. Yields in 1930 were the largest since the War, averaging slightly over 1.5 tons, while the average for 1929 of about 0.6 tons was the smallest. Preliminary estimates indicate a yield of about 1.0 tons per bearing acre in 1931 or about 10 per cent below the ten-year average. Production calculated from present bearing acreage of about 172,000 acres at average yields of 1.1 tons approximates 190,000 tons.

Production in Oregon and Washington is estimated at about 31,000 tons for 1931 as compared with 28,500 tons harvested in 1930, over 58,000 in 1929, and only 6,000 in 1928. Average production of dried prunes in the Pacific Northwest for the five years 1926–1930 has been about 28,000 tons. The bearing acreage is likely to remain fairly stationary for a few years unless economic pressure causes a reduction. Hence, production may continue to average about as large as in recent years, although it is likely, as in the past, to fluctuate greatly from year to year because of great variations in weather conditions from one year to the next.

The preliminary estimate of the prune crop of the Lot-et-Garonne or Bordeaux area of France for 1931 is about 4,500 tons as compared with 17,000 in 1930, 4,800 in 1929, and 2,400 in 1928. The output obviously fluctuates violently from year to year. The general opinion is that the French industry is on the decline and that production in the near future is not likely to average any greater than the 10,000

ton average of recent years. France has been on a substantial import basis for several years, taking a large majority of her supplies from California. French imports from the United States during the last five years have averaged about 17,000 short tons, only slightly less than the quantity imported into the United Kingdom.

Jugoslavian exports of dried prunes for the third year in succession have been small. The exportable surplus from the 1931 crop is estimated at only about 6,600 tons as compared with 9,500 tons exported from the 1930 crop and 11,900 from the 1929 crop. Average exports for the years 1927–1930 have been only about 19,000 tons as compared with an average of nearly 50,000 tons for several years immediately after the War. This great decline in exports is largely the result of tree losses and of reduced yields per tree, according to Mr. M. J. Newhouse, who made a survey of the industry for the United States Department of Agriculture in 1929. Neglect of planting and lack of care during the War and the spread of scale (*Lecanium corni*) in the older orchards has greatly reduced bearing acreage. The latter of these two causes, as well as several years of unfavorable weather, has also greatly reduced yields per tree. The dried output has been reduced not only by the decrease in the total crop but also because of increases in the quantity of fresh prunes shipped to European markets largely as a result of improved methods of packing and shipping and the construction of standard gauge railroads. According to Mr. Newhouse, the exportable surplus of Jugoslavian dried prunes will probably continue to be considerably less than the 50,000 ton average immediately after the War, although it cannot be expected to remain at the very low level of the last three years.

Export Situation.—The heavy tonnage of low-priced dried prunes produced on the Pacific Coast in recent years, together with the decline in Jugoslavian exports, have been primarily responsible for the tremendous increase in exports from the United States since the War. United States exports of prunes have increased from an average of about 30,000 tons immediately after the War (1919–1922) to the record movement of 152,674 tons, or nearly 56 per cent of the 1930 crop. A relatively small tonnage—71,318 tons—was exported from the 1929 crop because of the very small California crop and the prevailing high prices. On an average, export outlets now take well over half of our annual production and it appears that the Pacific Coast industry may expect to continue to be vitally dependent on foreign markets as long as production is maintained at present high levels.

The heaviest importer of American prunes is Germany, to which we have shipped an average of over 34,000 tons during the last five years, or nearly 30 per cent of our total exports. Record shipments to Germany from our 1930 crop amounted to 50,783 tons, or approximately one-third of our total exports. The movement to the United Kingdom from our ports has averaged approximately 19,000 tons for the last five years, or nearly 17 per cent of the total exported. Our dependence on this market has naturally been adversely affected by the recent sudden decline in the English pound sterling, which may remain low for some time.

ORANGES

Summer Oranges.—Growers who intend to plant Valencia oranges in 1932 should give careful consideration to the probability that when their trees come into bearing, average prices received for oranges shipped during the summer months will be materially below the high level of recent years. Indications are that the trend of production of summer oranges for the coming years will increase faster than the trend of demand. There is also the probability that the general price level will continue below the 1921–1929 average which will, in itself, tend to keep orange prices lower than they would be otherwise. The prices of commodities that growers buy for living and production purposes, however, may also be lower, which offsets a part of the decline in orange prices.

With the exception of those of May and October practically all of the United States shipments of summer oranges originate in California. During the past decade there has been a marked upward trend in the shipments of summer oranges from this state, rising from 7,000,000 boxes in 1921 to 14,000,000 boxes in 1931. This amounted to an average increase of 700,000 boxes a year. Indications are that the future rise in the trend of shipments will be at least as rapid as in the past. In 1929 there were 112,250 acres of Valencias in the state, of which 20,890 acres or 19 per cent were nonbearing, and an even larger proportion was not in full bearing. Plantings of Valencias for the past three years have been relatively heavy.

From 1922 to 1928 the trend of demand for summer oranges increased even faster than the trend of shipments. Consequently there was an upward trend in prices, rising from $3.50 a box in 1922 to $4.70 a box in 1928. Since 1928 the trend of demand has been increasing more slowly. The average increase for the past three years has been at the rate of 550,000 boxes a year as against an

average increase of 1,100,000 boxes a year during the previous six years. For the coming years a further increase in the trend of demand is to be expected, but there is no evidence that the rate of increase will be any greater than that prevailing in the past three years and it may not be as great. An increase in the trend of demand equivalent to 550,000 boxes a year, however, is not sufficient to offset the prospective increase in the trend of shipments, which, judging from the available data on acreage may be expected to rise at the rate of at least 700,000 boxes a year. Consequently it is probable that the future trend of prices will be downward. If the more rapid increase in the trend of shipments as compared with the increase in the trend of demand were the only factor affecting the future level of summer orange prices, high average returns to growers during the next five years could still be maintained.

More important factors in the situation are that the actual demand for oranges in 1932 is likely to be materially below the trend because of the depressed buying power of consumers, and that even after business activity and employment return to normal, the general level of prices of all commodities is likely to be below the 1921–1929 average. The lower general price level will, of course, result in lower prices on all agricultural commodities. Prices of summer oranges, therefore, are expected to remain favorable as compared with the prices of most agricultural commodities for another four or five years. The chief danger in the situation is that the relatively favorable returns from Valencia oranges are inducing growers to plant an excessively large acreage.

Exports of oranges during the six months of May to October have increased rapidly in recent years. For the three years of 1922–1924, exports averaged 918,000 boxes a year as against an average of 2,329,000 boxes a year during the past three years, an increase of 153 per cent. The relative increase in exports, therefore, was much greater than in total production. During the three years 1929–1931, 14.5 per cent of the total shipments were exported, whereas for the three years 1922–1924 only 9.8 per cent were exported.

Conditions for the coming years are likely to be less favorable to a further substantial increase in exports than the average of recent years. In June, 1931, Canada, which has been our most important export market, placed a duty of 75 cents a box on oranges imported from the United States. It appears probable that the United States orange industry must either bear a part of the burden of the Canadian duty or ship fewer oranges to Canada or both. Any reduction in the shipments of oranges to Canada must, of course, result in a larger

volume to be disposed of in the domestic market or in foreign markets other than Canada. Since oranges imported into Canada from countries of the British Empire are on the free list, these countries now have a decided competitive advantage. South African and Australian oranges are marketed during our summer orange season (May to October), while those from Jamaica are marketed during the latter part of our summer season and the first part of our winter season.

As a result of the large crop of summer oranges in California in 1929 and 1931 considerable quantities were exported to Europe, particularly to the United Kingdom. The abandonment of the gold standard by England in September, 1931, however, has made it more difficult for the United States to export oranges to that country since the price in English currency that must be obtained in order to equal a given number of dollars is now about 30 per cent higher than before.

The competition which California summer oranges meet in the European markets is increasing. Exports from the Union of South Africa increased from 503,000 boxes in 1924 to 1,901,000 boxes in 1930, while those from Brazil increased from 315,000 boxes in 1924 to 893,000 boxes in 1929. The available information on acreage points to further increases during the next few years. Most of the exports from these two countries have gone to the United Kingdom. Although exports of oranges from Australia are now small, they are likely to increase materially within the next few years. There are about 36,900 acres of oranges in Australia, the bulk of which is not yet in full bearing. Production in that country increased from 1,693,000 boxes in 1924 to 2,389,000 boxes in 1929.

The 1931 summer crop of oranges was marketed under demand conditions more unfavorable than are likely to prevail, on the average, during the coming years. In the first place, the buying power of consumers was at a low ebb. While no material improvement in business activity and employment is expected for another year, after that there should be a gradual rise. In the second place, the volume of competing fruits, particularly peaches and cantaloupes, was unusually large. Thirdly, the sizes of the Valencia oranges were very small. These conditions, together with large shipments of summer oranges, resulted in the lowest prices that have been received for many years. If the supply of competing fruits and the sizes of the oranges had been normal and if the 1931 shipments of summer oranges had coincided with the trend of 14,000,000 boxes instead of amounting to 16,378,000 boxes, the average f.o.b. price would have

been about $1.30 a box higher. These facts indicate that summer oranges have withstood the effects of the depression better than most fruits.

Winter Oranges.—California oranges which are marketed during the six months of November to April, inclusive, are likely to meet increasing competition during the coming years from both oranges and grapefruit produced in other states of the Union. Although the production of Navel oranges in this state is now at the peak, Florida, Texas, and Arizona are capable of producing materially larger crops of citrus fruits than they have yet produced whenever conditions are favorable to high yields per acre.

During the past decade there was a gradual upward trend in the shipments of winter oranges from California, rising from an average of 10,077,000 boxes in 1920–1922 to an average of 14,147,000 boxes in 1928–1930. No further material increase, however, is expected for the coming years. Most of the shipments of oranges from California during the months of November to April are Navels. The peak of the Navel production in this state has apparently been reached. The bulk of the acreage is now in full bearing. Plantings of Navels in recent years have been small. In 1929 only 3 per cent of the total acreage was nonbearing. Although some increase in the shipments of California Valencia oranges may occur during November, it is not likely to be sufficient to add materially to the United States supply of oranges in that month.

The major increase in the United States supply of winter oranges will be from Florida. Production of oranges in that state has been increasing at an average rate of 4 per cent a year, and the proportion of young trees is apparently sufficient to permit it to continue to increase at the same rate for some years to come. According to the available information the total area in oranges, tangerines, and Satsumas in Florida in 1931 was around 265,000 acres. It is estimated that only about 20 per cent of this acreage is in full bearing, while about 60 per cent is from five to fifteen years of age, and about 20 per cent is less than five years old. Production of oranges is also increasing in Texas, Arizona, Louisiana, Alabama, and Mississippi. Texas now has about 21,500 acres of oranges, only 30 per cent of which is in bearing and practically none of which is in full bearing. In Arizona about 70 per cent of the 7,200 acres of oranges are nonbearing.

In addition to the increased shipments of winter oranges the prospective increase in the shipments of winter grapefruit will probably add further to the competition of California Navels.

From 1921–22 to 1927–28 there was a substantial increase in the trend of demand for winter oranges. Since 1927–28, however, there has been no further increase. The actual demand in 1930–31 was materially below the level of the previous years, chiefly because of the very large grapefruit crop and the depressed buying of consumers. Indications are that demand conditions through the 1931–32 marketing season for winter oranges will be even more unfavorable than last winter. Although the grapefruit crop is smaller than a year ago, the apple crop is much larger and there has been a further decrease in the buying power of consumers.

With the recovery of business activity and employment in this country a substantial increase in the demand for winter oranges from the present low level is to be expected. Indications are, however, that it will be several years before the demand is again as good as the 1927–28 average. By that time the United States production of winter oranges will be increased considerably. This, together with the probability that the general price level will continue below the 1921–1929 average indicates that the future level of winter-orange prices is likely to be materially below the 1925–1929 average of $3.72 a box.

Export markets are not likely to afford a large additional outlet for winter oranges produced in this country. During the past five years only 7.4 per cent of our commercial winter-orange crop has been exported. Approximately 85 per cent of our total exports have gone to Canada. The high import duty of 75 cents a box now in force will tend to restrict the consumption of oranges in Canada. European countries are already well supplied with low-priced Mediterranean oranges produced in Spain, Palestine, and Italy. These countries market their oranges from November to April. Orange production in both Spain and Palestine is increasing so that it is improbable that there will be a profitable outlet for any considerable volume of American winter oranges in Europe in the coming years. During recent years about 45,000 acres of oranges have been planted in Spain. The total acreage in 1929–30 was nearly 50 per cent larger than in 1925–26. Palestine now has about 14,000 acres of oranges, most of which have not yet reached the age of full bearing. Although no immediate increase in the production of oranges in Italy is in prospect, neither is there likely to be a substantial decline. Each of these three countries have recently passed legislation in an endeavor to improve the packing and grading of their export fruit.

GRAPEFRUIT

The trend of world grapefruit production is sharply upward. Larger crops are in prospect during the next few years in the United States, Porto Rico, Isle of Pines, South Africa, Palestine, Jamaica, Brazil, and Argentina. While a further increase in the demand for grapefruit is expected, it does not now appear that the trend of demand will increase as fast as the trend of production. This, together with the prospect that the general price level will continue below the 1921–1929 average, points toward materially lower grapefruit prices than the average of recent years. Future prices of summer grapefruit, however, are likely to be more favorable than those of winter grapefruit.

Production in Florida, the most important grapefruit-producing section in the world, has been increasing at the rate of about 5 per cent a year and will continue to increase for several years more. In 1931 there were about 93,000 acres of grapefruit in Florida, of which only about one-third were as much as fifteen years old. The 1930–31 crop of grapefruit in Florida was the largest on record, amounting to 11,200,000 boxes, as compared with an average production of 7,120,000 boxes during the previous five years. The 1931–32 crop is short, being estimated at 8,500,000 boxes. With the large proportion of trees not yet in full bearing, however, it may be expected that during the coming years crops materially larger than that of 1930–31 will be produced whenever weather conditions are favorable to high yields. In Texas there has been a phenomenal expansion in the acreage and production of grapefruit during recent years. The total grapefruit acreage in Texas in 1931 amounted to 70,000; of the trees in this acreage, only 20 per cent were five years old or older and practically none were of full-bearing age. Production in Texas has increased from 4,000 boxes in 1921–22 to 906,000 boxes in 1930–31. The total acreage of grapefruit in Arizona now amounts to 12,600, of which only 33 per cent is in bearing.

Most of the increase in the production of grapefruit in California during recent years has been in the Imperial and Coachella valleys. The shipment of their fruit occurs at the same time as that from Florida, Texas, and Arizona.

During the past two years an average of 814,000 boxes of grapefruit was received from Porto Rico. That territory has now recovered from the effects of the 1928 hurricane. The grapefruit acreage in Porto Rico is estimated at 8,300, of which 25 per cent is nonbearing.

Exports of grapefruit from the United States have been increasing rapidly, rising from an average of 282,500 boxes in 1922–23 and 1923–24 to an average of 1,085,000 boxes in 1929–30 and 1930–31. A further substantial increase in the trend of exports is to be expected. It is probable, however, that American grapefruit will experience considerable competition in the European markets during the coming years. In the past the United States and Porto Rico have supplied most of the grapefruit consumed abroad. In 1926 the United Kingdom imported only 93,000 boxes of grapefruit from countries other than the United States and Porto Rico as against 200,000 boxes in 1930.

Exports from the Isle of Pines, which has now recovered from the hurricane damage, exceed 200,000 boxes a year. In 1929–30 exports from Jamaica amounted to 106,000 boxes as against 56,000 boxes in 1925–26, while those from the Union of South Africa amounted to 104,000 boxes in 1929–30 as against 24,000 boxes in 1925–26. Exports from Palestine, which amounted to only 2,000 boxes in 1927–28, reached 57,000 boxes in 1930–31, and during the 1931–32 season they are expected to be around 70,000 boxes. Brazil and Argentina are not important grapefruit exporting countries at the present time, but they are likely to become important in the future.

The bulk of the United States grapefruit crop is shipped during the eight months of October to May, inclusive. The shipping season in Florida, Texas, and Arizona is finished in May or June. The new crop does not begin to move to market until the last of September or October. In most years the bulk of the United States shipments of grapefruit during the three months of July to September originate in California. Receipts from Porto Rico during those three months, however, amount to a considerable volume and some grapefruit is imported from the Isle of Pines. Plantings of summer grapefruit in California during recent years have been small. Most of the acreage is now in bearing and a considerable part of it is in full bearing. The demand for summer grapefruit has increased even more rapidly than the demand for winter grapefruit.

Canning of grapefruit in Florida has increased rapidly during the past decade. In 1923–24 the pack amounted to only 200,000 cases as compared with 2,712,000 cases in 1930–31. It is not likely, however, that as large a volume will be canned in 1931–32. The very large pack in 1930–31, which was practically double that of the previous year, resulted in a demoralized market, very low prices, and a large carryover. While it may be several years before canning will offer a profitable outlet for as large a quantity of grapefruit as

was packed last year, it is expected that the demand for canned grapefruit will be substantially increased during the coming years. It should be recognized that canned grapefruit competes to a considerable extent with fresh grapefruit.

LEMONS

Despite the decline in the buying power of consumers, the demand for lemons in this country during the past two years has been maintained at a high level. Most of this recent increase in demand, however, has been the result of the temporary rather than permanent conditions. Consequently, growers should not expect that during the next few years shipments as large as those of the past two years can be sold at prices as high as those which were obtained in 1929–30 and 1930–31.

The chief factor affecting the demand for summer lemons is the temperature in the consuming markets. Hot weather stimulates the demand; cool weather retards it. During the four months of June to September, 1930, temperatures in the fourteen principal lemon-consuming markets in the United States averaged 2.5 degrees above normal, while during the same months of 1931 the temperatures in the fourteen markets averaged 3.3 degrees above normal. The summer of 1931 was the warmest in twenty years, and at no time since 1910 have we had two summers in succession as warm as those of 1930 and 1931. On the average, an increase of 1 degree in summer temperatures has in the past resulted in an increase in the demand for lemons equivalent to 50 cents a box.

During the past decade there has been an upward trend in the production of lemons in this state. In the past five years production has averaged around 6,700,000 boxes a year, or about 28 per cent above the average of the previous five years. It is not expected, however, that there will be a further material increase in production within the next few years. There is no reason to expect that average production for the next five years will be materially different from the average of the past five years. In 1929 about 94 per cent of the lemon acreage in California was in bearing and a substantial proportion of it was in full bearing.

The increase in the production of lemons in this state during the past decade would have resulted in materially lower prices to growers than those which were obtained had it not been for decreased imports, limitation of domestic shipments, and increased demand.

United States imports of lemons for the past three years amounted to an average of 702,000 boxes a year as against an average of

1,348,000 boxes during the three years of 1921–22 to 1923–24. This was a decrease of 48 per cent. In 1930–31, imports which amounted to only 284,000 boxes were the smallest on record. These small imports were mainly the result of an increase in the tariff duty from 2.0 cents to 2.5 cents per pound, the large California crop which increased the speculative hazard in importing lemons, and the small lemon crop in Italy which is the main source of United States imports. It is not expected, however, that lemon imports during the next five years will average as low as those in 1930–31. While no material increase in lemon production in Italy is in prospect, neither is there likely to be a substantial decline. The recent abandonment of the gold standard by the United Kingdom and other European countries has made the United States a relatively favorable market for Italian lemons.

From 1920–21 to 1927–28 there was a steady upward trend in the demand for lemons in this country, rising at the rate of about 200,000 boxes a year. For the past three years, however, the trend of demand has increased at the rate of only 100,000 boxes a year.

Despite the decrease in imports and the increase in demand there has been a substantial surplus of lemons in recent years whenever the California crop has been average or above. For the past five years an average of 1,400,000 boxes a year were sent to product plants on a salvage basis, or dumped. If all the lemons produced during those five years had been shipped, disastrously low prices to growers would have resulted.

In the coming years it is probable that limitation of shipments will have to be continued in order to prevent prices from going to low levels. While no material increase in lemon production in this state is in prospect during the next few years, neither is there likely to be a pronounced decline. The present level of domestic production of around 6,700,000 boxes, plus net imports of 530,000 boxes (the average of the past five years), is considerably in excess of the probable demand for lemons in this country several years from now.

The most unfavorable factors in the lemon situation in 1932 are the probable continuation of the low general price level and of the depressed buying power of consumers. The influence of these factors upon the price of lemons next summer, however, may be offset by the prospective reduction in the supplies of summer lemons due to the recent freeze. Whether temperatures in the consuming markets in 1932 will be above or below normal cannot, of course, be determined this far in advance. From the long time point of view the most unfavorable factors in the lemon situation are: (1) that the general

price level, in the absence of a considerable increase in the volume of money and credit in circulation, is likely to continue below the 1921–1929 average even after business activity and employment return to normal; and (2) that the high average returns received by lemon growers during the past four years will stimulate the planting of too large an acreage. In the past three years plantings of lemons in Santa Barbara, Ventura, and Los Angeles counties have been relatively heavy. If future plantings, however, are moderate and are made only in areas which produce a large proportion of summer fruit at a low cost, it is probable that lemon growing will continue to be one of the more profitable of the agricultural industries of California. The lower general price level will result in lower prices of the commodities that growers buy for living and production purposes which will offset a part of the decline in lemon prices.

There is as yet no evidence that the upward trend in the demand for lemons has been stopped, although the rate of increase in the future is not likely to be as rapid as in the past. The industry has already demonstrated its ability to take care of seasonal surpluses successfully. If large acreages are planted to lemons in the next few years, however, it is probable that the surpluses above domestic requirements will become very burdensome when the trees come into bearing.

ALMONDS

The peak of almond production in California has apparently been reached. The higher duty on importations of almonds now in force tends to restrict the competition from foreign countries. With the recovery in the buying power of consumers from the present low level, the demand for almonds will be increased. Prices of the commodities that almond growers buy for living and production purposes have decreased during the past two years and a further decline is in prospect. During the next few years these conditions will tend to restore the California almond industry to a favorable position as compared with most alternative crops. The rate of recovery, however, may be retarded by the probable continuation of the low general price level and by the increasing competition of walnuts and pecans.

The 1931 production of almonds in California amounted to 14,800 tons, which was the second largest crop on record. It was exceeded only by that of 1926. Weather conditions last year were favorable to high yields per acre. The condition of the crop was 78 per cent

of normal as against the 1921–1930 average of 66 per cent. It is not likely that production in the coming years will average as large as that in 1931. About 97 per cent of the total acreage of almonds in this state is now in bearing, while about 70 per cent is in full bearing. A considerable proportion of the young-bearing acreage is in sections that are not well adapted to high yields per acre. During the coming years this acreage is not likely to add materially to the total state production, and its influence will be largely offset by the decline in production of the old trees.

Prior to 1928 there was a marked upward trend in almond production in California. The average production for the two years of 1927 and 1928 amounted to 13,000 tons as against an average of 7,250 tons in 1921–1922. This increase in production, however, was more than offset by the decrease in imports. During the two years 1921–22 and 1922–23 the average net imports of all almonds, in equivalent of unshelled almonds, amounted to 38,935 tons as compared with an average of 27,190 tons for the two years of 1927–28 and 1928–29. Thus the total United States supply of almonds was reduced from an average of 46,185 tons in 1921–22 and 1922–23 to an average of 40,190 tons in 1927–28 and 1928–29, a decrease of 13 per cent.

Mainly because of the decline in the total supply of almonds in this country prices paid to growers rose. The 1927–1928 average price of the six major varieties was 16.5 cents a pound as against 14.4 cents a pound in 1921–1922. In 1929 prices rose to 22.3 cents a pound chiefly as a result of the very short crop of almonds in this state. This high price stimulated imports and curtailed consumption. With the decline in the general price level and the decreased buying power of consumers during 1930 and 1931, prices of almonds fell to the lowest point in twenty years. The average price of the six varieties in 1930 was around 10.5 cents a pound and in 1931 around 8.1 cents a pound.

In June, 1930, the import duty on almonds was increased from 4.75 cents a pound to 5.5 cents a pound on unshelled almonds and from 14.0 cents a pound to 16.5 cents a pound on shelled almonds. Partly as a result of the low prices of almonds in this country and partly as a result of the increase in the import duty, importations in 1930–31 were small. Total imports of unshelled almonds in that year amounted to only 28 tons as against 2,713 tons in 1929–30, and an average of 480 tons for the three years 1926–27 to 1928–29. Imports of shelled almonds in 1930–31 were also the smallest in many years, amounting to only 18,714 tons in equivalent of unshelled as against 28,509 tons in 1929–30 and an average of 25,860 tons for the three years 1926–27 to 1928–29.

Indications are that imports, particularly of shelled almonds, will be larger in 1931–32 than they were in 1930–31. In September, 1931 about 1,089 tons of shelled almonds, in equivalent of unshelled, were imported as compared to 357 tons in September, 1930. Although the 1931 Mediterranean almond crop is about 10 per cent smaller than the 1930 crop, demand conditions in the European countries, which are important markets for almonds, are fully as unfavorable as in the United States. Furthermore, the recent reduction in the value of the currencies of important European countries in terms of United States dollars has made the United States a relatively attractive market for foreign almonds.

Although the higher import duty will, if continued, tend to restrict the competition from foreign almonds it must nevertheless be expected that importations, particularly of shelled almonds, will continue to be heavy. There is as yet no evidence pointing toward a downward trend in almond production in the Mediterranean countries. There has been a decline in almond production in Italy during the past three years but this is apparently the result of low yields rather than of a reduction in acreage.

The large prospective increases in the production of walnuts and pecans may add considerably to the competition that California almonds meet in the consuming markets. With around 66 per cent of the walnut acreage in the state not yet in full bearing a further substantial increase in production is to be expected. An even more rapid increase in the production of improved pecans in the southern states is in prospect. In 1930 about 65 per cent of the trees of improved varieties were less than eleven years of age, while 40 per cent were less than six years of age.

WALNUTS

The available information points toward a pronounced upward trend in the production of walnuts in both California and Oregon during the coming years. In order to dispose of this large prospective increase in production it will probably be necessary to reduce prices on the unshelled walnuts and to shell a larger proportion of the crop. In view of these conditions it does not appear that new plantings of walnuts are justified except in those localities where it is definitely known that good yields of high quality walnuts can be produced at a very low cost. Producers who have been unable to make a satisfactory income under the high level of prices of recent years and who are unable to reduce their costs materially, should give careful consideration to alternative enterprises.

The rise in the trend of walnut production in California has been particularly rapid during recent years. The average increase in the trend from 1925 to 1931 amounted to 1,840 tons a year, as compared with an increase of only 1,000 tons a year between 1921 and 1925. The actual production in both 1930 and 1931 was materially below the trend. Weather conditions were particularly unfavorable to high average yields per acre in 1931. The condition of the crop last year was 61 per cent of normal as against 64 per cent in 1930 and an average of 76 per cent for 1921–1930.

The available data on acreage indicate that the recent rapid increase in production in this state will continue for some years. In 1931 only 34 per cent of the total acreage was in full bearing, while 42 per cent was in young bearing and 24 per cent was nonbearing. Even if a large acreage of full-bearing trees is removed during the next few years the increased bearing capacity of the present nonbearing and young-bearing acreage would still be sufficient to maintain the rapid rate of increase in production that has prevailed since 1925. This rate of increase, if continued until 1940, would result in a normal production in that year of around 55,000 tons. This estimate appears to be conservative in view of the fact that if none of the present acreage is removed, the normal production in 1940 would be around 65,000 tons. It is expected, however, that a considerable acreage in southern California will be taken out during the next few years. In the winter of 1930–31 about 1,800 acres in the five important walnut-producing counties of southern California were uprooted, and indications are that the annual removals may be even larger in 1931–32 and the years immediately following. There is no indication, however, that a sufficient acreage will be uprooted to prevent the future trend of production from increasing at least as fast as it has since 1925. It must be remembered that about 20,000 acres of full-bearing trees would have to be taken out in order to reduce production 10,000 tons, since the average yield per full-bearing acre in the state is only 1,000 pounds.

Although production of walnuts in Oregon has been small, that state is rapidly becoming a much more important factor in the walnut situation. For the three years 1928–1930, production averaged 1,167 tons as compared with an average of only 284 tons in 1923–1925. Although their 1930 crop was short, amounting to only 800 tons, the 1931 crop was the largest on record despite a high infestation of walnut blight and a long period of hot, dry weather. During the coming years a further marked upward trend in walnut production is to be expected. In 1929 there were 507,600 walnut trees in Oregon,

of which only 18 per cent was in full bearing while 28 per cent was young bearing and 54 per cent was nonbearing.

In order to dispose of the prospective increase in production of walnuts in California and Oregon, it is evident that demand must be increased, prices of unshelled walnuts reduced, or a part of the merchantable walnuts must be shelled. It is probable that all three will occur.

The demand for unshelled walnuts in this country may reasonably be expected to increase with the increase in population. Each year during the next ten years it is expected that there will be an additional million people in the United States. With a per-capita consumption of unshelled walnuts equal to the 1922–1929 average of 0.61 pounds, the increase in population will result in an increased demand equivalent to 305 tons a year. Production of merchantable walnuts, allowing for 17 per cent of the crop to be culls, promises to increase at the rate of 1,700 tons a year.

How much the per-capita demand for unshelled walnuts in this country can be increased without exorbitant cost is not known. In judging the possibilities two important facts must be taken into consideration. First, the large prospective increase in the production of improved pecans, most of which are marketed in the shell, may add considerably to the competition that walnuts meet in consuming markets. Secondly, there was no increase in the per-capita demand for unshelled walnuts in this country during the prosperous years of 1922 to 1929 inclusive. Although per-capita consumption fluctuated widely from year to year, no definite upward or downward trend was apparent. Neither was there a definite upward or downward trend in prices. The average consumer was buying about the same quantity of unshelled walnuts at the end of the period as at the beginning and was paying about the same price a pound for them. The rapid increase in the consumption of California walnuts was fully offset by a decrease in the consumption of imported walnuts. In 1922–23 importations of unshelled walnuts amounted to 9,545 tons as against 3,490 tons in 1929–30. The 1930–31 imports were even smaller, amounting to only 1,777 tons. In June, 1930, the tariff rate on unshelled walnuts was raised from 4 cents a pound to 5 cents a pound. Since the importations of unshelled walnuts are now very small, further substantial increases in the consumption of domestic-grown walnuts must come as a result of increased per-capita consumption of unshelled walnuts rather than by the substitution of domestic-grown for foreign-grown walnuts.

Chiefly as the result of the decline in business conditions and employment during the past two years, consumption of unshelled walnuts has decreased sharply. In 1930–31 the per-capita consumption of unshelled walnuts amounted to only 0.44 pounds as against the 1922–1929 average of 0.61 pounds, a decrease of 28 per cent. Indications are that the per-capita consumption in 1931–32 will be even smaller.

Because of the small supplies of unshelled walnuts during the past two years, prices paid to growers have been maintained at relatively high levels as compared with the prices of most agricultural commodities. There has, however, been some decline in walnut prices. The 1930 prices were 2 cents a pound lower than the 1922–1929 average, while the 1931 prices were about 6 cents a pound lower.

With the recovery in business conditions and employment a substantial increase in the demand for walnuts from the present low level is to be expected. It may be several years, however, before the per-capita demand is again as good as the 1922–1929 average. Even after business activity and employment return to normal, it is not likely that supplies as large as 0.61 pounds per capita can be sold for prices as high as the 1922–1929 average. The probability that the general price level in this country will continue below the 1922–1929 average will in itself result in a lower level of walnut prices. Prices of commodities that growers buy for living and production purposes will also be lower, which offsets a part of the lower prices received for walnuts.

With the exception of 1927 when the California crop was unusually large, shelling has been confined to cull walnuts. During the coming years shelling of the lower grade merchantable nuts may have to be resorted to whenever the crop is unusally large in order to prevent prices of unshelled walnuts from going to disastrously low levels. The possibilities of increasing the sales of shelled domestic walnuts is apparently much greater than for unshelled domestic walnuts. For the five years 1926–27 to 1930–31 almost 85 per cent of the total United States supply of shelled walnuts was imported. The import duty on shelled walnuts is now 15 cents a pound, having been raised from 12 cents a pound in June, 1930. By extensive advertising it may be possible to induce consumers to buy California shelled walnuts instead of imported ones; such a change in consumer habits has actually been accomplished in the case of unshelled walnuts. It must be recognized, of course, that in the absence of further increases in the tariff, competition from foreign unshelled walnuts will remain keen for many years. Most of our imported walnuts come from France, Italy, and China. According to the available information

some increase in walnut production is in prospect in both France and Italy. Because of the cheap labor the cost of shelling walnuts is much less in those countries than in California.

When it becomes necessary to shell any considerable portion of the merchantable crop in order to limit the supply, returns to growers will tend to be reduced because the net returns on shelled walnuts have been materially below those of unshelled. The reduction in returns, however, will not be so great as it would be if a very large supply of unshelled walnuts were forced on the market. The most encouraging sign in the California walnut industry is that the growers, being strongly organized, are in a position to handle temporary surpluses which result from unusually favorable yields, and to maintain the demand for California walnuts above what it would be otherwise. No cooperative marketing association, however, can be expected to market a permanent surplus at prices profitable to the average grower.

OLIVES

The upward trend in olive production in California is nearing the peak. With the recovery in business activity and employment a substantial increase in the demand for canned ripe olives from the present low level is expected. Indications are that the future trend of demand for canned ripe olives over a period of years will increase faster than the trend of supply. It appears, therefore, that there will be a gradual upward trend in the prices of olives, beginning within the next four or five years.

The commercial production of olives in the United States is practically confined to California. During the past decade there has been a substantial increase in the commercial production of olives in this state, rising from an average of 11,700 tons in 1921–1923 to an average of 19,800 tons in 1928–1930. The 1931 commercial crop was short, amounting to only 15,000 tons. During the coming years only a small further increase in the trend of production is expected. Plantings of olives in recent years have been small. Most of the acreage of Mission and Manzanillo olives is now in full bearing. On the other hand, only about one-third of the acreage of large-type olives—Sevillano, Ascolano, and Barouni—is in full bearing. Practically all of the increase in total production within the next few years will, therefore, be in the large-type olives, which are used mainly for canning.

In recent years about 58 per cent of the commercial production of olives in the state was canned, 36 per cent pressed for oil, and 6 per cent shipped fresh and dried.

Approximately 98 per cent of the edible olive oil used in the United States is imported, mainly from Italy, Spain, and France. Prices of edible olive oil, although much above the prices of cottonseed, coconut, and corn oils, have at no time in the past decade been sufficiently high to return to California producers of oil olives a satisfactory price. There are no indications that prices of oil olives will be higher during the coming year than the average of the past ten years, and they may be lower.

Shipments of California canned ripe olives increased from an average of 304,000 cases in 1920–21 to 1922–23 to an average of 638,000 cases in 1926–27 to 1928–29, which is an average increase of 55,000 cases a year. This upward trend in shipments, however, did not result in a downward trend in the prices of canned ripe olives, which is evidence that the trend of demand increased at the rate of about 55,000 cases a year during that period. In both 1929–30 and 1930–31 the demand for canned ripe olives was materially below the trend. In 1929–30 shipments amounted to only 582,000 cases, which was about 21 per cent below the trend. Shipments in 1930–31 were 13 per cent larger than in 1929–30, and prices were considerably lower. Indications are that both shipments and prices will be lower in 1931–32 than in 1930–31. Canned ripe olives are essentially a luxury product and consequently the demand for them has been affected by the decline in the buying power of consumers to a greater extent than the demand for many of our fruits. As business activity and employment increase, however, it is to be expected that there will be a marked rise in the demand for canned ripe olives. Four or five years from now the normal demand will probably be about 400,000 cases larger than the actual demand in 1930–31, which indicates that at that time about 400,000 more cases can be sold at the same prices as were received in 1930–31, or that the same quantity as was sold in 1930–31 can be sold at much higher prices. The normal packs of canned ripe olives by 1935 or 1936 are expected to be considerably larger than the 1930–31 shipments, but they are not expected to be as much as 400,000 cases larger. Judging from the available information on acreage they will probably be about 200,000 cases larger.

BEEF CATTLE

Beef cattle prices in 1932 are expected to average lower than in 1931. Total cattle slaughter will probably be at least as high as last year while consumer demand for beef will probably average lower. From the long-time point of view, indications are that cattle numbers which have been increasing since 1928, will continue to increase for a few more years. This prospective expansion in number is expected to result in an upward trend in cattle and calf slaughter. With the recovery in business activity and employment in this country, however, an increase in the demand for beef is expected to develop.

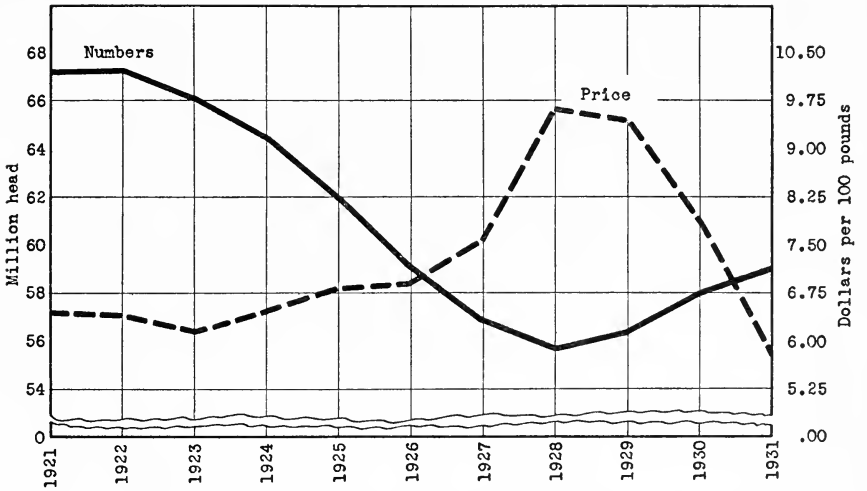

Fig. 8.—Number of cattle on farms in the United States, and prices of beef cattle to California producers.

The number of cattle in the United States increased again in 1931 for the fourth consecutive year and on January 1, 1932, the estimated number was 62,407,000 head, an increase of 2.4 per cent over January 1, 1931 and about 10 per cent over January 1, 1928, the recent low point in numbers. This increase in the 4 years from 1928 to 1932 amounted to 5,702,000 head as against an increase of 11,373,000 head between 1912 and 1916, which was the similar period in the previous cattle cycle. As was the case in the preceding 3 years, the largest increase in cattle numbers in 1931 was in cows and heifers 2 years old and over. There was a decrease in steers and in yearling heifers kept for milk cows. This larger proportion of cows

means that cattle production in terms of total tonnage of beef and veal can be increased or decreased more rapidly than was possible in earlier years. This greater ability to readjust numbers comes from the fact that the calf crop at present is about as large as was ever produced; with this large number of calves a considerable change in the proportion slaughtered for veal from year to year will result in a material increase or decrease in the total number of cattle.

While the number of cattle available for slaughter in 1931 was larger than a year earlier, there was no increase in federally inspected cattle slaughter. The inspected slaughter in 1931, amounting to 8,108,000 head, was 62,500 head smaller than in 1930, but the decrease was probably offset by an increase in farm and other local slaughter of cattle. Federally inspected calf slaughter of 4,716,000 head was 121,000 head larger than in 1930 and without doubt there was a considerable increase in farm and other local slaughter of calves. Although the number of cattle available for slaughter in 1932 is larger than the supply of a year ago, any increase in slaughter which occurs this year will have to be largely of cows and heifers, since the supply of steers is smaller. With the increased number of cows and heifers on farms, it is expected that the production of calves in 1932 will be larger than that of 1931.

Cattle imports into the United States totaled 88,000 head for the first eleven months of 1931, compared with 232,000 in the corresponding period of 1930. Supplies of canned beef inspected for entry into the United States were about 65 per cent smaller, while total imports of fresh and frozen beef were 80 per cent smaller.

Lower consumer incomes resulted in a reduction in the demand for beef during 1931. Per capita consumption of federally inspected beef and veal during 1931, amounting to about 39 pounds, was about the same as that of 1930. Prices of cattle and beef, however, were materially lower. Demand for beef during 1932 will depend largely upon the trend of business conditions during the year. The prospect of a continued low level of consumer incomes during the first half of 1932, the tendency for changes in the demand for beef to occur somewhat later than changes in business activity, and the prospective increases in supplies of competing meats, all indicate that any improvement in this demand during the year will be only moderate and that for the year as a whole the demand will average below that of 1931.

Wholesale and retail beef prices, as well as cattle prices, were considerably lower in 1931 than in 1930. Comparisons of the yearly averages of good grade steer prices at Chicago and of good grade beef prices at New York for the two years show that the reduction amounted

to $3.02 per 100 pounds in the price of steers, $2.41 in the wholesale value of the beef obtained from each 100 pounds of the live animal (58 pounds), and $4.50 in the retail value of the saleable cuts obtained therefrom (46.25 pounds). In comparing the declines in cattle prices with those of wholesale beef values, consideration should also be given to the material decline in the values of hides and other by-products.

Since 1880, cattle production has gone through three complete cycles with rather significant regularity. These periods of increasing and decreasing numbers were from 1880 to 1896, 1896 to 1912, and 1912 to 1928. Since 1928 an upward trend of another cycle in cattle production has been under way. How long this upward trend will continue and what the future rate of increase in numbers will be, depends first, upon conditions affecting the potential capacity and present incentives for expansion, and second, upon conditions outside the industry affecting the demand for beef. In the western range states there is very little opportunity for further expansion in numbers unless there is a material reduction in the number of sheep. In the Central West, particularly in the Corn Belt where the major proportion of cattle in the country is produced, an increased production of pasture and hay in the hilly areas and a greater use of leguminous crops for soil-building purposes in the better areas, could increase materially the grazing resources without affecting appreciably the supply of feed grains. There is some evidence that these shifts are now under way.

Although cattle prices are far below the 1925–1929 average, the decline in feed prices and in prices of other commodities, the production of which can be substituted for cattle production, has been even greater. Consequently, there is little incentive at present for reducing cattle production, despite the sharp decline in cattle prices. On the other hand, there appears to be little in the immediate demand situation to stimulate further expansion. Consumer demand for beef is now greatly restricted as a result of the severe depression. From the long-time point of view, this demand will strengthen when the eventual improvement in business increases consumer purchasing power. Some growth in demand will come from the normal increase in population which has been at the rate of about 1,000,000 annually during the last ten years. Increased demand as a result of population growth, however, will be relatively small and very gradual and may tend to slow up in the future because the increase in population in the past decade has been at a declining rate. Any material reduction in wholesale and retail distribution costs may be expected to increase the proportion of the consumer's expenditure for beef going to the cattle producer.

DAIRY

Prices of dairy products in California are likely to average even lower in 1932 than they did in 1931. The number of dairy cattle in the United States is now larger than a year ago. Milk production per cow for the country as a whole is expected to be higher than in 1931, when it was reduced by drought and poor pasture conditions. There are no indications that the demand for dairy products in 1932 will average any better than in 1931. Partly offsetting these unfavorable factors, however, are the abnormally low storage stocks of most dairy products, particularly butter.

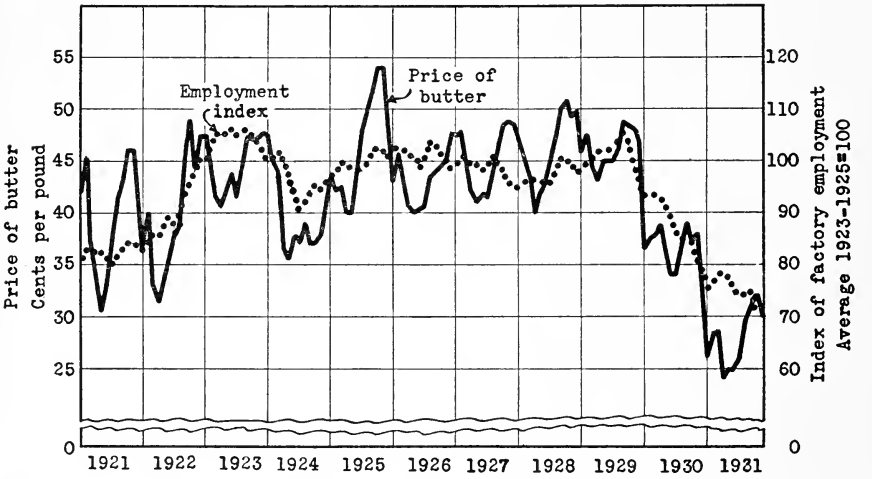

Fig. 9.—Prices of butter at San Francisco, and Federal Reserve Board index of factory employment in the United States.

On January 1, 1932, the number of milk cows and heifers two years old and older in the United States was 24,379,000. This was an increase of 3.5 per cent above the number on the same date last year and 6.4 per cent greater than the number two years ago. The increase in number during the last half of the year was probably the greatest in any similar period for many years. This increase would not appear to have been due to any abnormal number of heifers coming into production, but was rather the result of decreased culling due to the tendency of farmers to keep more cows as long as the prices of dairy products are more favorable than those of other products and as long as feed is cheap relative to dairy products. Recent sharp declines in the market prices of dairy products will probably lead to some reduction in the northeastern states; but, with returns from other agricul-

tural products greatly reduced, many farmers are willing to milk additional cows even though there is only a relatively small spread between the income received from the products and the market value of the feed. In the South the necessity of producing on the farms a larger share of the food needed is a compelling factor, and the large local supply of cottonseed products and the larger acreage of hay and feed crops harvested in parts of the South in 1931 have stimulated local dairy expansion on a commercial scale. In the Corn Belt and in the West the higher price of butterfat as compared with prices of hogs and sheep is tending to shift interest to milk cows. In the eleven western states combined the number of dairy cows on January 1, 1932, was 2 per cent larger than a year earlier. In California, however, no increase occurred.

During the past two years relatively few dairy cows have been slaughtered. The pronounced decline in the price of beef cattle has greatly reduced the beef value of discarded cows. In November, 1931, the inspected slaughter of cows and heifers was only 57 per cent of the average for that month during the previous eight years. In view of the relatively large number of aged cows now in herds, however, it does not appear that culling can be reduced much further.

The number of yearling heifers being kept for milk cows on January 1, 1932, was estimated at 4,665,000 or 2.3 per cent below the 4,777,000 on hand in January, 1931, and nearly 1 per cent below the 4,700,000 on hand in January, 1930. The number of heifer calves on hand and being saved for milk cows in January, 1932, is estimated as 4,891,000, which is about the same as the number saved last year and 2.3 per cent below the number saved in January, 1930. For the country as a whole, the number of heifers and heifer calves being saved for milk cows is now about the number that would normally be required to maintain dairy herds at their present high level.

The combined production of the principal manufactured dairy commodities in commercial plants in the United States in 1931 is estimated to have been about the same as in 1930. Substantial increases occurred in both creamery butter and evaporated milk for the months of January to April, inclusive, but with the development of unfavorable production conditions, particularly in the intensive dairy states of the Middle West, the manufacture of these commodities dropped abruptly to a level below that of the preceding year. This lower level held throughout the summer and early fall; but the relation between feed costs and butterfat prices made butter production comparatively profitable, and when weather conditions became quite favorable gener-

ally during the last three months of the year, the manufacture of creamery butter took a sharp upward swing, which was maintained to the end of the year in spite of some decline in butter prices. The production of concentrated milk, however, continued to be less than in the preceding year.

On January 1, 1932, the total quantity of butter in cold storage amounted to but 26,550,000 pounds compared with 63,401,000 pounds on January 1, 1931, and a five-year average of 53,951,000 pounds. Cheese stocks of 55,735,000 pounds on January 1, 1932, were 7½ million pounds below a year previous and almost 4 million pounds below the January first five-year average. Stocks of evaporated milk in manufacturers' hands are also very materially below those of the past few years at this season.

The general decline in prices of dairy products during the last two years has been influenced primarily by the deflation in commodity prices and the business depression, since the increases in domestic production of dairy products during the last two years were relatively small. The price decline during January, 1932, was influenced in addition by the increase in December and January production. From January, 1929, to December, 1931, the general level of wholesale prices in the United States declined about 30 per cent to approximately the pre-war level, while farm prices of all farm products declined 50 per cent and on December 15 were 34 per cent below pre-war. During the same period farm prices of feed grains declined 53 per cent as compared with a decline of 37 per cent in farm prices of dairy products. During 1931 prices of dairy products were low as compared with prices in previous years, but were high as compared with many other farm products. This price relationship has tended to stimulate dairy production.

During the past two years, seasonal competition from foreign countries has continued even with a tariff of 14 cents a pound on butter. Early in October, 1931, the price margins in New York over Canadian butter in Montreal, New Zealand butter in London, and Danish butter in Copenhagen approximated our import duty. The volume of actual importation was small and principally from Canada, but offers of foreign butter laid down in our principal markets influenced prices out of proportion to actual volume of importation. However, with the exception of periods during which domestic prices are seasonally highest, as in our winter months, prevailing tariff rates of 14 cents per pound on butter and 7 cents per pound on cheese may be expected to provide an effectual barrier against foreign products entering United States markets, but they may not insure against the possibility of

domestic supplies bringing our prices to the world level, as occurred last summer. The excess of United States imports over exports of all dairy products combined on the basis of their total milk equivalent declined further in 1931 to approximately 400 million pounds from 606 million pounds in 1930, and 780 million pounds in 1929.

Although one of the most hopeful signs in the California dairy industry has been the increasing percentage of milk utilized in the form of high-priced products such as fluid milk and cream, the amount of market milk consumed per capita has declined during the past five years. A continued high differential between the prices of milk fat for market milk and for manufacturing purposes will sooner or later cause adjustments in both the retail and buying prices of market milk. Although retail prices of market milk declined approximately 13 or 14 per cent in the United States compared with a decline of over 17 per cent in the composite prices of all foods, the decrease in some places in California was far less. For the future of the market milk industry it is highly desirable that the consumption of market milk be kept to as high a level as possible, and one of the important methods of maintaining this level of consumption is to keep the retail prices of milk in line with other retail prices.

HOGS

Slaughter supplies of hogs during the remainder of the present marketing year which ends September 30, 1932, are expected to be considerably larger than the relatively small supplies of the corresponding period of 1931. No material improvement in the demand for hog products appears likely during this period, either at home or abroad. Present indications are that the 1932 spring pig crop in this country will not be greatly different from that of 1931, but that the European hog production in 1932 for the 1933 market will show some decrease.

Hog production in the United States, after declining in 1929 and 1930, increased in 1931. The pig surveys of 1931 showed an increase of 9 per cent in the number of pigs saved in 1931 over 1930. The largest relative increase was in the fall pig crop, which the survey showed as 20 per cent larger in 1931 than 1930. The increase in the number of pigs raised in 1931 was reflected in the number of hogs on farms January 1, 1932. The estimated number this year was 59,511,000 head, compared with 54,374,000 head January 1, 1931, and 55,301,000 head January 1, 1930. In California, the estimated number

on January 1, 1932 was 672,000 head compared with 560,000 head on January 1, 1931 and 590,000 head on January 1, 1930.

Federally inspected slaughter during October, November, and December, 1931 (the first three months of the marketing year which ends September 30, 1932) totalled 13,377,000 head, an increase of 1,200,000 head over the corresponding period in the 1930–31 year. The increase in the number of hogs on farms from January 1, 1931 to January 1, 1932, points to a federally inspected slaughter during the nine months, January to September, 1932 (the remainder of the present marketing year) of about 34,000,000 head, making a total of about 47,500,000 head for the entire year of 1931–32. The inspected slaughter for the marketing year 1930–31, was 43,559,000 head, and for 1929–30 about 45,542,000 head. Other indications point to a slaughter for the 1931–32 marketing year somewhat larger than 47,500,000 head. If the slaughter for the 3 months, October to December, 1931, is about an average proportion of the total crop-year slaughter, the yearly total would be about 48,000,000 head. With available information showing that the increase in the fall pig crop of 1931 was relatively much larger than the increase in the spring crop of that year, the indications are that the slaughter in the first three months of the marketing year may be less than the average proportion of the yearly total. In this event, the total would be more than 48,000,000 head.

On January 1, 1932, total pork stocks were over 7 per cent larger than those on January 1 of the previous year, but they were not greatly different from the 5-year average for that date. Storage holdings of lard on January 1, 1932, were not greatly different from the relatively small stocks on January 1, 1931, but they were 21 per cent smaller than the 5-year average January 1 holdings.

The decline in consumer demand for pork products which began early in 1930 continued throughout 1931. During the marketing year which ended September 30, 1931, per capita consumption of pork and lard from federally inspected slaughter, amounting to 55.8 pounds, was 3 per cent smaller than during 1929–30, and retail prices of pork products at New York averaged about 15 per cent lower. During the first three months of the current marketing year, 1931–32, per capita consumption of pork products was about 6 per cent larger than in those months of the previous year but retail prices of these products were 22 per cent lower. Domestic demand for pork during 1932 will depend in a large measure upon developments in the business situation, but in view of present prospects, no improvement of any consequence in this demand during the year seems probable. The recent

increase in hog production in deficit hog-producing areas, especially in the cotton belt, will probably result in greater local and farm slaughter, which will tend to reduce the demand for pork from commercial slaughter.

Total United States exports of all hog products during the 1930–31 marketing year were the smallest in more than thirty years. This reduction was due largely to a marked increase in hog production in European producing countries and to the reduction in purchasing power of European consumers. Pork exports during the 1930–31 year decreased 44 per cent from those of a year earlier, while lard exports decreased about 26 per cent. Indications are for a continued low level of foreign demand for American products during the remainder of the hog marketing year which ends September 30, 1932. Factors pointing in this direction are: (1) continued large numbers of hogs in important European countries and the record supplies of pork and lard which are being produced in those countries, and (2) no indication of strengthened European buying power in the near future through improved industrial conditions.

Wholesale and retail prices of pork products in the United States were much lower in 1931 than in 1930. Comparisons of the yearly averages of medium-weight hog prices at Chicago and pork prices at New York in the two years show that hog prices declined from $9.85 to $7.06, which represents a reduction of $2.79 per 100 pounds; the wholesale value of the principal products (representing about 60 pounds or 75 per cent of the carcass weight obtained from 100 pounds of live hog) declined from $11.90 to $9.25, a reduction of $2.65, and the retail value of the saleable products obtained from these wholesale cuts (52.64 pounds) dropped from $14.13 to $11.43, a decline of $2.70. If the declines in the values of by-products and minor cuts were included, the reductions in the wholesale and retail values would be greater than the figures shown.

The declines in prices of pork and lard in European markets during 1931 were even greater than the sharp declines in the United States. From December, 1930 to December, 1931, price declines at Liverpool amounted to 61 per cent for American green bellies, 49 per cent for both Danish Wiltshire sides and American short cut green hams, and 37 per cent for lard. In New York, the composite wholesale price of pork declined 38 per cent during that period and lard prices declined 33 per cent. Immediately after the departure from the gold standard by Great Britain, prices of pork products in that country advanced both in sterling and in gold. The advance was only temporary, however, and prices in gold were at new low

levels during December. In sterling, lard prices were still somewhat above the low level reached during August, 1931, while prices of other pork products were at or near the lowest levels reached thus far in this depression. The abandonment of the gold standard by Denmark and Great Britain has intensified the competition from Denmark in the British pork trade.

POULTRY AND EGGS

The outlook is for a smaller production of eggs in 1932 than in 1931 because (1) comparing numbers on January 1, 1932 with a year previous, a 5 per cent reduction of hens and pullets is indicated in the farm flocks of the country, (2) commercial flocks on the Pacific Coast have reduced numbers, and (3) average egg production per hen may not be as high in 1932 as in 1931.

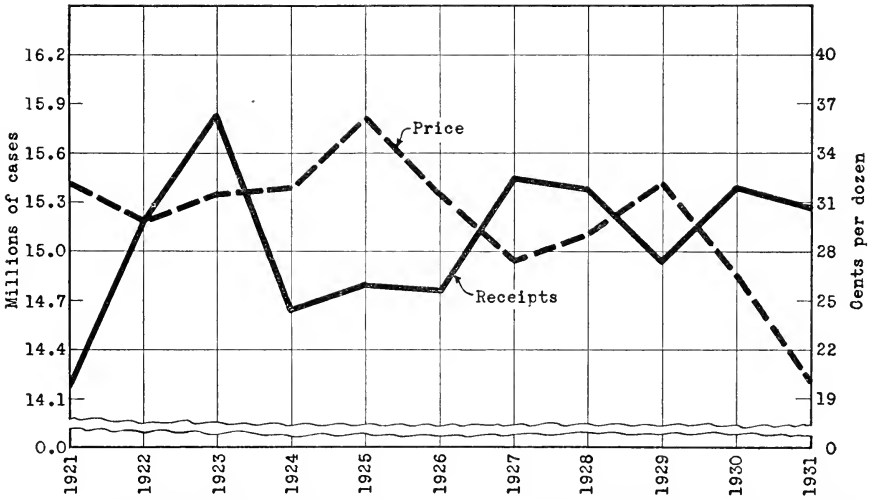

Fig. 10.—Egg receipts of four markets in the United States, and prices received by California producers.

During 1931, indications based upon farm flock observations were that the number of chickens to be raised in farm flocks in 1932 would be increased. In spite of the February, 1931 slump in prices the 1931 season was more favorable to poultry and egg producers than to producers of many other farm products. The severe break in winter egg prices at the close of 1931, resulting from heavy storage stocks and the large winter production of eggs, altered the situation. The low egg price tendencies shown in January, 1932 will probably cause a further decrease. On the other hand, there is a tendency to increase numbers when the prices of other farm products are lowered on account of the availability of poultry and eggs for farm use.

Since the commercial flocks of the Pacific Coast are supplied from the hatcheries of the area it is of interest to note that the sales by hatcheries in California during the spring of 1931 were the smallest since hatchery records were first published in 1927. During the fall of 1931 sales were somewhat higher than in 1930. Commercial hatcheries report that unless cancellations are unusually heavy it is to be expected that more chicks will be sold in the spring of 1932 than during the similar period of last year.

Present conditions indicate a weak demand on the part of storage operators during the coming spring. Storage operations were unprofitable to the majority during the two last years of falling prices. With the relatively heavy stocks of frozen eggs on hand as of January 1, 1932, the demand for eggs by breaking plants will not be great.

Feed for poultry was in ample supply during 1931 and given a normal year in 1932, insofar as weather is concerned, it will again be ample. Until the break in winter egg prices in December, 1931 the egg-feed ratio in California was highly favorable to the egg producer.

Since a very large increase or decrease in numbers of chickens is possible within a period of six or eight months of a single year outlook statements must be revised at short intervals. If the into-storage movement is light and if fewer eggs are used for hatching the forcing of additional eggs into immediate consumption is liable to cause prices to be as low or lower for the first six months of 1932 than during the similar period of 1931. No increased demand is anticipated during the first six months of 1932. On the other hand, if eggs are used in larger than anticipated amounts for storage and hatching, prices may rise above those prevailing during the first half of last year, provided the general price level does not show a continued decline. This latter situation will probably not prevail.

During the second half-year present prospects point to as good or somewhat better demand conditions than during the second half of 1931. This will be the case if industrial conditions give evidence of some improvement and if storage holdings are less than normal. One highly uncertain factor is the number of pullets which will be added to poultry flocks during the fall of 1932. California poultrymen will be in a relatively more favorable situation, insofar as prices are concerned, than poultrymen in general farming sections. There will be a lighter production of Pacific Coast eggs this spring than last, and indications are that Pacific Coast eggs will enjoy relatively higher prices than midwestern eggs during 1932. It would further appear that the continued low prices lasting from February to June of 1931

will not be repeated with Pacific Coast eggs during 1932. Indications point to a slight rise during the latter part of this period in 1932.

Stocks of eggs in storage on January 1, 1932, were still large, amounting to only 400,000 cases less than the record-breaking stocks of January 1, 1931, and about 300,000 cases more than the 5-year average for that date. The forcing of these stocks into consumption caused severe price declines in January, 1932. Total stocks of frozen eggs on hand at the beginning of 1932 were about 79,000,000 pounds as compared with 83,000,000 pounds on January 1, 1931.

Along with decline in egg prices in 1931 occurred a lowering of poultry prices—but not to the same extent as that which took place in egg prices. If there are fewer hens on farms in 1932 it would appear that the number sent to market would be less. However gluts may occur. As a result of the low egg prices prevailing in January, 1932, the Leghorn hen market was overcrowded and would not absorb all of the poultry which was offered. With the cheap meat cuts it will be difficult even with lessened numbers to maintain the prices prevailing in 1931.

On January 1, 1932, cold storage stocks of poultry were reported at about 117,000,000 pounds, approximately 12,000,000 pounds more than the very low stocks on the same date in the previous year, but 7,000,000 pounds less than the 5-year average on January 1.

SHEEP

California spring lambs are likely to be marketed under less favorable conditions in 1932 than prevailed in 1931. Competition from fed lambs and from Texas early spring lambs is likely to be more severe while consumer demand is likely to be lower. After 1932, however, a gradual improvement is in prospect. As business activity and employment recover from the present low level the demand for lamb will be strengthened. Indications are that the downward swing in the sheep production cycle may get under way in 1932 and that the numbers of breeding stock may show some reduction by 1933.

On January 1, 1932 the estimated number of sheep and lambs on feed for market in the Corn Belt and western states was 6,186,000 head compared to 5,428,000 head January 1, 1931. This number establishes a new record for lamb feeding operations in this country. Feed conditions and feed prospects in the main sheep area of Texas are very good, which points to a large movement of grass-fat yearlings and wethers out of that state similar to that in 1931. In addition

there was a considerable increase in the number of lambs dropped in Texas during November and December of 1931, which may be reflected in a heavy movement of early spring lambs in March and April. On the other hand, weather conditions in the early lambing sections of California in November and December, 1931 were rather unfavorable and old feed was short and new grass late in starting; breeding ewes were below average in condition and losses of old ewes were rather large. As a result of the heavy precipitation in December

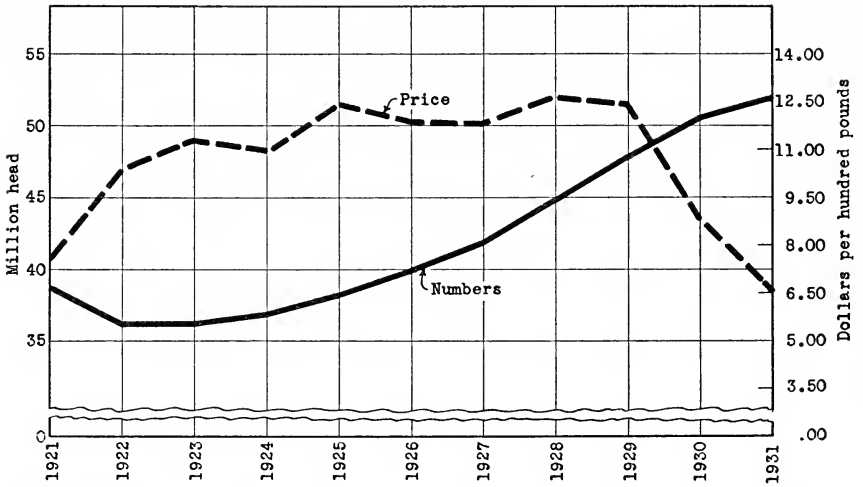

Fig. 11.—Number of sheep and lambs on farms in the United States, and prices of lambs to California producers.

and January, prospects for green feed are much better than at this time in several years and with seasonal warm weather, abundant feed will result. The early lamb crop is probably somewhat smaller than last year but since feed conditions are better, much improvement in the finish of the lambs is to be expected.

With consumer incomes during 1931 much smaller than in 1930, the demand for lamb and mutton was reduced, and the increased market supplies were moved into consumption only at greatly reduced prices. Per capita consumption of federally inspected lamb and mutton during the first eleven months of 1931, amounting to 5.1 pounds, was 5 per cent larger than in the corresponding period of 1930, but retail prices of lamb at New York declined 16 per cent. This reduction in demand was not as marked, however, as the reduction in demand for beef and pork. Incomes of consumers during the 1932 spring lamb marketing season are expected to be lower than last season. With the probability of as large or larger supplies of com-

peting meats, it appears that demand for lamb this spring is likely to be considerably below that of last spring.

The average price of lambs at Chicago during the four months March to June, 1931 was $8.87 per 100 pounds as against $10.55 in the same months of 1930 and an average of $15.44 in the five years, 1925–1929. The average price paid California producers for lambs during the entire 1931 season was $6.75 per 100 pounds as against $8.79 in 1930 and an average of $12.22 during the five years 1925–1929.

Sheep numbers in the United States increased again in 1931 and on January 1, 1932, the total number of sheep and lambs on farms and ranges and in feed lots was 53,912,000 head. This was an increase of 2 per cent over January 1, 1931, and 49 per cent over January 1, 1922, which was the low point from which numbers have risen without intermission until they now are the largest on record in this country. Both stock sheep and sheep and lambs on feed for market were in larger numbers on January 1 this year than last. The increase in stock sheep was mostly in ewes one year old and over and the proportion of old ewes—over six years of age—was relatively large. In the western states reports from owners of 4,000,000 head of stock sheep, which is equal to 11 per cent of such sheep in these states, showed that old ewes made up 15.6 per cent of the total ewes one year old and over on January 1, 1932, while similar reports for two preceding years showed 13.9 for January 1, 1931, and 10.9 January 1, 1930. Comparison of reports from the same outfits made as of January 1, 1932 and January 1, 1931, showed that there was an increase of 8 per cent in old ewes, an increase of 5 per cent in ewes two to five years, a decrease of 6 per cent in yearling ewes, and a decrease of 20 per cent in ewe lambs being kept for breeding. The increase in the proportion of old sheep was mainly the result of the very low prices prevailing for slaughter ewes. During most of this period the price was so low that returns to the shippers were little more than expenses of shipment from sections where the distance from market made these expenses relatively large.

Continued high world wool production in the face of reduced consumer demand and falling general commodity price levels resulted in an almost continuous decline in wool prices from 1928 to the beginning of 1932. Recoveries in prices and trade abroad have been short-lived. Toward the end of 1931, activity in the wool textile industries increased in a few foreign countries, but prices were barely steady and indications were that sales of goods were generally low. In the United States wool consumption rose to a high level in the

spring and summer of 1931, but failed to maintain the improvement after September.

World wool production has continued at the peak of the cycle for an unusually long period. Exceptionally favorable weather and feed conditions and the limited alternatives open to sheep and wool growers undoubtedly contributed to the maintenance of high production despite falling prices. Depreciated currencies, especially in Argentina and Australia, may have alleviated to some extent the influence of low prices. Nevertheless, the low incomes from sheep and wool can be expected to favor liquidation and to check expenditures. For the important wool-producing countries of the Southern Hemisphere reductions from these factors alone, however, may be slow unless unfavorable climatic or feed conditions develop.

Imports of combing and clothing wool into the United States in 1931 were the smallest in thirty years. Only 36 million pounds were imported last year as against 69 million pounds in 1930 and an average of 113 million pounds during the five years 1926–1930.

ASPARAGUS

During the next few years the California asparagus industry is faced with the prospect of heavy production, a considerable surplus in excess of canning requirements, and low prices. In view of these conditions it appears that asparagus growers would benefit substantially if they postponed additional plantings for several years, immediately plowed out bearing acreage that is declining in productivity, and made strenuous efforts to develop the market for fresh asparagus.

According to a survey made by the Canners League of California, growers intend to plant 2,900 additional acres of asparagus in northern California in 1932. This acreage will come into bearing in 1934. At that time production of asparagus is expected to be substantially above the present level even with a fairly large plow-out during the intervening years. Approximately 34 per cent of the total acreage of asparagus in the Delta district of California in 1931 was planted during the three years of 1929 to 1931. By 1934 the 6,410 acres planted in 1929 will be in full production, while the 19,140 acres planted in 1930 and 1931 will be nearing full production. Based upon the available data on age of beds and average yields per acre it is expected that production during the next four years will increase at the rate of about 100,000 cannery boxes a year unless an abnormally large acreage is plowed out or yields are reduced by neglect. The normal life of an asparagus bed in the Delta district is about twelve

years. By 1934 about 12,830 acres now in production will be thirteen years of age and older and will normally have been removed. In recent years, because of the higher returns obtained from asparagus than from alternative crops, beds have generally been maintained in production longer than twelve years but this situation is not likely to prevail during the next few years. Instead, growers may find it to their advantage to plow out their acreage earlier than would normally be done. There is little prospect that conditions in the asparagus industry will improve sufficiently during the next two years to justify the maintenance of acreage that is now declining in productivity and which would normally be plowed out in the course of the next three or four years.

In 1931, because of the unsatisfactory market conditions, the pack of canned asparagus was limited to 1,747,000 cases as against an average pack of 2,668,000 cases in 1929 and 1930. The carryover on March 1, 1931 amounted to 958,000 cases, making a total supply available for shipment during the 1931–32 season of 2,705,000 cases. The largest volume ever shipped in any one season was 2,619,000 cases, and that was in 1929–30 when demand conditions were very favorable. In 1930–31 shipments amounted to only 2,029,000 cases. Demand conditions in 1931–32 have been even more unfavorable than in 1930–31 so that shipments during the season ending March 1, 1932 are likely to be even smaller than in 1930–31. There is no definite assurance that there will be any material improvement in business activity and employment in this country during 1932. It appears, therefore, that the pack will again have to be limited this year in order to prevent a demoralized market and an excessive carryover into the 1933 season. When business conditions do recover, a substantial increase in the demand for canned asparagus from the present low level is to be expected. It may be several years, however, before the demand is again as good as it was in 1929–30. By that time production will be materially larger than in 1929 unless a large acreage is plowed out.

In 1931 about 800,000 cannery boxes of asparagus were unharvested. This volume would have been considerably larger had it not been that the season was favorable for fresh shipments despite the low buying power of consumers. Carlot shipments from California in 1931 were the heaviest on record, amounting to 2,671 cars as against 1,697 cars in 1930 and the 1926–1930 average of 1,466 cars. The shipping season in California was unusually early last year while in South Carolina and Georgia it was unusually late. Approximately 63 per cent of the total California shipments in 1931 had moved to

market before the shipping season in the southern states began, as compared to an average of only 19 per cent for the previous five years. Furthermore, the competition from other green vegetables on the eastern markets was less than usual in 1931 because of the extremely cold weather in the southern and southeastern states. Because of these favorable conditions the large supplies of fresh asparagus from California did not result in disastrously low prices. Prices were lower, however, than in any recent year. The average price at New York in 1931 was $3.54 a crate as against the 1926–1930 average of $4.45 a crate.

An organized effort among growers and shippers to expand the market for fresh asparagus and to regulate shipments so as to prevent the glutting of the principal markets would materially assist in moving a larger volume of fresh asparagus than could otherwise be done.

BEANS

Only a small increase in the prices of beans in 1932 over those prevailing in 1931 is in prospect unless the acreage is materially reduced or the yields are abnormally low. The 1931 crop is moving relatively slowly, and unless utilization should be increased substantially during the spring and summer months, another heavy carryover at the beginning of the 1932 marketing season seems highly probable.

The total United States acreage of beans harvested in 1931 was 11 per cent less than that of 1930, but about the same as that of 1929. The average yield for the United States was 690 pounds, which was 30 pounds greater than in 1930 and the highest since 1925. The total production was 12,705,000 bags of 100 pounds each compared with 13,757,000 bags in 1930 and 12,240,000 bags in 1929.

The total acreage of beans harvested in California in 1931 was 334,000 acres compared with 363,000 acres in 1930, and the 1926–1930 average of 322,000 acres. As a result of lack of moisture, yields per acre in 1931 were about 12 per cent below those in 1930 and about 3 per cent below the 1926–1930 average yields.

Total bean production in California in 1931 was 3,467,000 bags as compared with 4,264,000 bags in 1930 and an average of 3,268,000 bags during 1926–1930. Production was less in 1931 than in 1930 for all varieties except Bayos, Cranberries, and Red Kidneys. A sharp decrease occurred in both Pinks and Blackeyes.

The production of both standard Limas and Baby Limas in 1931 was somewhat less than the year before although still considerably

above the average of preceding years. The 1931 crop of standard Limas was 1,064,000 bags which, with a carryover of 74,600 bags, gives a total supply of 1,138,600 bags as compared with a total supply of 1,118,300 bags in 1930. Production of Baby Limas fell from 696,000 bags in 1930 to 663,000 bags in 1931. The reduction, however, was more than offset by the unusually heavy carryover of 103,000 bags. While both Lima crops were smaller than in 1930, total supplies show an increase of 87,000 bags. On January 1, 1932, stocks of standard Limas in California warehouses were 20 per cent larger than on January 1, 1931, while Baby Lima stocks were 29 per cent larger. Prices of standard Limas from September to December, 1931, averaged 37 per cent below those of last year and prices of Baby Limas 45 per cent.

Production of Blackeyes dropped sharply from 852,000 bags in 1930 to 459,000 bags in 1931, a decrease of 393,000 bags. This was partly offset by the very heavy carryover of 196,000 bags, giving a total supply of 655,000 bags as against 876,000 bags last year. Stocks on hand on January 1, 1932, were about 13 per cent below those on January 1, 1931. Prices of Blackeyes from September to December, 1931 averaged about 20 per cent under 1930.

United States production of Pinto beans, which compete directly with California Pink beans in the consuming markets, in 1931 amounted to only 1,499,000 bags compared with 3,024,000 bags in 1930. The acreage of beans in Colorado and New Mexico, the principal Pinto bean-producing states, was sharply reduced and yields per acre were low as a result of the drought. Production of Pinks in California in 1931 amounted to 423,000 bags as compared with 607,000 bags in 1930. This decrease in production, however, was partly offset by the large carryover of 102,000 bags at the beginning of the season. The total supply of Pink beans this season amounts to 525,000 bags compared with 612,000 bags last season. On January 1, 1932, stocks of Pink beans in California warehouses were 16 per cent smaller than a year earlier. Prices of Pink beans during the four months of September to December, 1931, were about 26 per cent lower than for the same months of 1930.

Prices of large and small white beans in California during the four months September to December, 1931, averaged about 40 per cent lower than during the corresponding period of 1930. More favorable growing conditions in Michigan and New York in 1931, compared with the bad drought conditions of 1930, resulted in a substantially larger production of Pea beans despite a smaller acreage. Although

the production of Great Northerns in 1931 was about 3 per cent smaller than the record crop of 1930, the carryover at the beginning of the 1931 season was unusually heavy so that the total supply of this variety for 1931–32 is larger than last year.

The United States production of Red Kidney beans in 1931 was 75 per cent larger than in 1930 and 40 per cent larger than in 1929. The crop in California amounted to 119,000 bags in 1931 as against 76,000 bags in 1930, and 47,000 bags in 1929. Stocks of Red Kidneys in California warehouses on January 1, 1932, were 160 per cent larger than on January 1, 1931.

Production of both Cranberries and Bayos in California was larger in 1931 than in 1930. On January 1, 1932, stocks of Cranberries in California warehouses were 40 per cent larger than a year earlier, while stocks of Bayos were 89 per cent larger.

Both imports and exports of beans were light during September, October, and November, 1931, the first three months of the new crop marketing season. Imports less reexports of foreign beans were only 3,000 bags during this period, compared with 135,000 bags in 1930 and 312,000 bags in 1929. Exports of domestic beans for these months were only 31,000 bags, compared with 37,000 in 1930 and 56,000 in 1929. Net annual imports for the season from September, 1930 to August, 1931, were 508,000 bags compared with 1,135,000 bags for the previous twelve-month period and an average of 464,000 bags for the years 1924–1928.

A large proportion of the beans imported during recent years has been made up of white beans competing with domestic Pea beans and other classes of white beans. The unusually small imports for the early months of the current season are attributed to plentiful supplies of domestic white beans and low prices rather than to any shortage of foreign beans. The price of domestic Pea beans at New York in December averaged only $3.01 per 100 pounds wholesale, or barely topping the 3-cent a pound import duty. Prices of imported Pea beans averaged $1.20 per 100 pounds, and Otenashis (large whites) averaged $1.76 per 100 pounds in bond at New York City in the same month. There is a surplus above domestic requirements both in the Danubian countries and in Japan, although the 1931 acreage of export types in Japan was reduced materially after the low prices received for the previous crop. In Roumania there is less tendency to change bean acreages in responce to changes in price.

COTTON

A small increase in cotton prices is in prospect in 1932. The United States production of cotton in 1932 is expected to be materially below the large crop of 1931. This, however, may be nearly offset by the larger carryover. Demand conditions in the fall of 1932 may be slightly more favorable than they were in the fall of 1931.

Present indications are that both the total acreage of cotton and the average yield per acre will be smaller in 1932 than in 1931. Farmers usually reduce cotton acreage after a year of low prices. Such reductions in the past thirty years, however, have never exceeded 15 per cent. The 1931 acreage was only 10.2 per cent below that of 1930.

As a result of unusually favorable weather conditions, the average yield per acre in 1931 was 200.1 pounds, the highest since 1914 and 30 per cent above the 1920–1929 average of 154.4 pounds. Such favorable weather conditions cannot be expected to be repeated in 1932. Up to the end of January, temperatures throughout most of the cotton belt were mild. More weevils entered hibernation in the fall of 1931 than in 1930. Furthermore, indications are that less fertilizer will be used in 1932. On the other hand rainfall in the western parts of Texas and Oklahoma has been above normal since September.

Production of American cotton has exceeded consumption in each of the last two years and as a result the carryover has increased from 4,600,000 bales in August, 1929, to 8,800,000 bales in August, 1931. With the 1931 crop of 16,900,000 bales the 1931–32 supply of cotton amounted to 25,700,000 bales, the largest on record. The world consumption of American cotton amounted to 10,900,000 bales in 1930–31 and to 13,000,000 bales in 1929–30. Thus far in the 1931–32 season, world consumption has been larger than in the corresponding months of last season. Production of cotton outside of the United States was considerably lower in 1931 than in 1930. Prices of Indian and Chinese cotton have risen in comparison with American cotton and mills are turning more to American cotton in place of the foreign growths. Cotton consumption in the United States in the period August through December amounted to 2,196,000 bales in 1931, as against 2,010,000 bales in 1930 and 2,738,000 bales in 1929. On the whole it now appears that the total world consumption of American cotton during the 1931–32 season will not greatly exceed 13,000,000 bales, which is only slightly over one-half of the supply available for

consumption. Thus the carrryover on August 1, 1932, is likely to be considerably above the large carryover of 1931.

The supply of foreign-grown cottons for 1931–32 is the smallest since 1927–28. The carryover of foreign cottons has been increasing for each of the past four years. Due largely to the record carryover of Egyptian cotton, the carryover of all foreign cottons, as far as reported, showed an increase of 500,000 bales at the beginning of the 1931–32 season. World production outside the United States, however, is now estimated at 10,300,000 bales for 1931–32, compared with 11,500,000 bales in 1930–31, and 11,700,000 bales in 1929–30. Thus, production and supplies of foreign cotton, on the whole are moderate in view of the consumption of 11,600,000 running bales in 1930–31 and 12,200,000 running bales in 1929–30 as reported by the International Federation of Cotton Spinners.

On the Continent of Europe the cotton textile industries continue to be depressed along with other industries in response to low consumer buying power, credit and financial difficulties, and restricted export markets. The situation of the cotton textile industry in Great Britain depends largely upon its export trade, particularly in the Orient. Following Great Britain's going off the gold standard in September there was a marked increase in employment in its textile industry. The increased ability to compete in foreign trade and the boycott of Japanese goods by China appeared to favor exports at that time. The low purchasing power and the declines in exchange rates of other countries as they also went off the gold standard, however, limited the effectiveness of Great Britain's action. Through December, exports of cotton piece goods from Great Britain continued low and production of textiles was said to exceed sales. Recently labor difficulties are reported to have developed within the British cotton textile industry.

Prices of cotton in this country fell gradually from the beginning of the season to early October and at the low point on October 5 middling 7/8 inch cotton at the 10 spot markets averaged 4.9 cents per pound. A part of the subsequent recovery was lost, but for the month of November prices averaged 6.0 cents and for December 5.8 cents per pound.

POTATOES

Potato growers in 1932 face the prospects of a large crop, continued low demand, and consequently another season of low prices.

According to their reports, potato growers in the United States intend to plant in 1932 an acreage only slightly smaller than was harvested in 1931. Changes in yields per acre from the low yields of the past three years are likely to be the chief factor in determining the volume of the 1932 potato crop. Hot and dry conditions in certain eastern and central areas placed the 1931 potato crop under a handicap during the early part of the growing season, which was not completely overcome by beneficial rains and a generally favorable finish to the growing period. In the West, a water shortage held potato yields below the quantity usually to be expected in some states, especially Colorado and Utah. As a result of these conditions, the estimated average yield for the country as a whole was 111.3 bushels per acre, marking 1931 as the third successive year of comparatively low yields. In each of the three past seasons, the yield has been close to 110 bushels. Favored with only average weather conditions, crops of 120 to 123 bushels per acre could ordinarily have been expected. Considering the acreage shifts that seem likely to occur, and barring the experience of unusual weather hazards in 1932, it is not unreasonable to anticipate a yield the coming season at least 10 bushels greater than in 1931. Total production of potatoes in the United States in 1931 amounted to 376,000,000 bushels or about an average crop compared with 333,000,000 in 1930 and 329,000,000 in 1929. The increased volume was due chiefly to an increase in acreage from 3,038,000 acres in 1930 to 3,382,000 acres in 1931. Yields averaged about 110 bushels to the acre in 1929 and 1930 and 111 in 1931 compared with a record of 127 in 1924 and prospects for an average of about 120 under normal weather conditions. In the eleven southern states, acreages were increased from 382,000 in 1930 to 463,000 in 1931. Yields also averaged somewhat higher and production was therefore considerably higher, amounting to 40,618,000 bushels in 1931 compared with 32,204,000 bushels in 1930 and 27,945,000 bushels in 1929.

In the eleven early potato-producing states of the South, growers report that they intend to reduce their acreage 11 per cent. This is expected to occur through a 31 per cent decrease in the commercial acreage for shipping purposes while the remaining acreage, largely for home or local supplies is expected to be increased about 2 per

cent. Ordinarily such reductions could be expected to produce substantial price advances but this year the large carryover from the 1931 late potato crop together with the reduced buying power of consumers as compared with a year ago are expected to about offset the smaller supplies.

The acreage and yield prospects for late potatoes suggest a somewhat larger United States crop in 1932 than in 1931 and a continuation of approximately 1931–32 market conditions unless a material change takes place in the meantime in consumer incomes and in the level of food prices in general. On the other hand, the 1932 potato crop will probably be produced with a much smaller cash outlay, for prices of material and labor are now lower than a year ago.

RICE

Prices of rice in California in 1932 are not likely to be materially higher than in 1931 and may be lower. Unless a larger demand arising out of Japanese war activities develops, it is probable that the carryover on August 1, 1932, will be about that of August 1, 1931. The California crop may be larger in 1932 than in 1931 as a result of the ample water supply in prospect. Unless business activity and employment both in this country and abroad pick up much faster than now seems likely, only a small improvement in the demand for rice in the fall of 1932 over that prevailing in the fall of 1931 can be expected.

Supplies of California rice for milling this year appear to be the equivalent of about 250,000,000 pounds as compared with 230,000,000 pounds for 1930–31. Shipments of California rice to Hawaii during the period August 1 to December 31, 1931, totaled 31,550,000 pounds as compared with 36,517,000 pounds for the corresponding period last year. Exports of California rice for those same periods were 1,746,144 pounds and 3,365,671 pounds respectively. Although the deficit in the domestic supplies of rice in Japan this year is the largest in several years, exports of California rice to that country are being curtailed as a result of the abandonment of the gold standard by Japan and the low buying power of consumers. Usually a large percentage of the deficit in Japan proper is made up by shipments from Taiwan and Chosen, the remainder being supplies from imports. The bulk of the Japanese imports come from Asiatic surplus-producing countries and from California. This year the exportable surpluses of these Asiatic surplus-producing countries are reported to be smaller than the record supplies of last year. Prices in these countries, however,

continue at relatively low levels. In order for California rice to move freely to Japan it is usually necessary for the price at Tokyo to be from 80 cents to $1.00 per one hundred pounds above the price at San Francisco. At the present time, however, the price at Tokyo is below the price at San Francisco. With the departure of Japan from the gold standard the value of the yen in terms of United States dollars declined from 49.8 cents to 35.2 cents.

The world wide depression and the Chinese boycott of Japanese goods have resulted in a material curtailment in business activity and employment in Japan. Although the Japanese prefer California rice to Asiatic rice they will buy California rice only when they are prosperous. In times of depression they turn to the lower quality rice from Asia which is relatively cheap.

The 1931 crop of rice in California is estimated at 180,000 tons as against 164,000 tons in 1930 and an average of 174,000 tons during the five years 1926–1930. The acreage of rice in California last year is estimated at 125,000 acres as against 110,000 acres in 1930 and an average of 129,000 during the five years 1926–1930.

The price of Fancy Japanese rice at San Francisco for the five months August to December 1931, averaged $3.25 per 100 pounds as against $3.63 per hundred pounds in 1930 and $4.20 per hundred pounds in 1929. Since July 1930 there has been an almost continuous decline in prices. In January 1932, prices averaged $2.75 per hundred pounds, the lowest in any month of the past decade.

Production of rice in the southern states in 1931 amounted to 832,800 tons as against 833,100 tons in 1930 and an average of 672,500 tons during the five years 1926–1930. Stocks of rough rice in farmers' hands on January 1, 1932, amounted to 393,000 tons as against 379,000 tons on January 1, 1931.

Shipments to Porto Rico for the first five months of the 1931–32 crop year totaled about 90,191,000 pounds which was about the same as the Porto Rico takings for the corresponding period last year and above the average of the last five years. Exports from southern ports for the first five months of the current crop year totaled 80,608,920 pounds compared with 92,011,012 for the corresponding period last year. Stocks of rough and milled rice in millers hands on January 1, 1932, were the equivalent of about 196,400,000 pounds of milled rice as compared with 164,200,000 pounds a year earlier and a five-year (1926–27 to 1930–31) average of 226,800,000 pounds.

The total United States rice crop in 1931 is estimated at 1,012,800 tons as against 996,700 tons in 1930 and the 1926–1930 average crop

of 919,700 tons. The carryover as of August 1, 1931, was estimated to be the equivalent of 58,500 tons of milled rice, which is 18,500 tons larger than the carryover a year earlier, but about the same as the average carryover of the past five years.

SUGAR BEETS

Low prices and restrictive measures appear to be reducing world sugar production. Reports to date indicate that the 1931–32 world beet and cane sugar production probably will be about 28,700,000 short tons, as compared with the record crop of 31,984,000 short tons harvested in the previous season. The decrease in production, however, is offset in part by an increase in stocks. The total stocks of sugar reported at the beginning of the 1931–32 sugar season (September 1, 1931) amounted to 8,335,000 short tons, which is 1,424,000 short tons in excess of the stocks at the beginning of the previous season. Of this amount, however, 2,800,000 short tons have been segregated to be held off the market and to be released gradually over a period of five years.

Beet-sugar production in the United States has been around 1,000,000 short tons during recent years with the exception of 1930, when production amounted to about 1,300,000 short tons. In 1931 a number of factories, especially in the Great Lakes area, did not operate, and consequently production of beet sugar declined.

A preliminary estimate of the European beet-sugar crop, excluding Russia, indicates a reduction of about 2,700,000 short tons from that of the previous season, when 9,514,000 short tons were produced. In Russia, an increase of 456,000 short tons is indicated. All countries of Europe with the exception of Austria, Latvia, and Turkey show noticeable decreases from last year, according to Licht's estimates. The five European countries that are signatories of the Chadbourne plan show a total decrease of over 1,500,000 short tons from the crop produced last season. On the basis of Licht's estimates for the European beet-sugar crop, it seems likely that sugar stocks in the five European countries that are members of the plan will be considerably reduced by the end of the 1931–32 season, provided consumption during the coming year does not fall below that of 1930–31.

Available information pertaining to the world cane sugar prospects is as yet incomplete. According to the Chadbourne plan the 1931–32 production in Cuba is to be limited to 3,914,000 short tons, a quantity sufficient to cover domestic consumption and United States

requirements, and to cover a limited quantity for export to other countries. The 1932 production in Java is expected to show a reduction. Production, in accordance with the Chadbourne plan, is expected to be large enough to cover the 1932 export quota of 2,535,000 short tons plus requirements for domestic consumption, estimated at about 440,000 short tons. The 1932 crop consequently may be expected to reach about 3,000,000 short tons or about 300,000 short tons less than the crop harvested in 1931. A preliminary estimate of cane-sugar production in Taiwan (Formosa) indicates a crop of 122,000 short tons above that of last season, whereas in the Union of South Africa a reduction of 22,000 short tons from last year is indicated. In Hawaii and Porto Rico, trade reports indicate that the production will not be far different from that of last year.

The 1930–31 cane sugar crop would very likely have been even larger than in 1929–30 had not Cuba limited production to 3,500,000 short tons, a reduction of over 1,000,000 short tons from the probable production of an unrestricted crop. As a result of the crop restriction in Cuba the 1930–31 world cane-sugar crop fell 1,302,000 short tons below that of 1929–30, the total production amounting to 19,212,000 short tons as compared with 20,514,000 short tons in 1929–30.

WHEAT

A gradual readjustment in wheat production throughout the world is occurring, which over a period of years is expected to improve the position of the wheat grower. Another year of low wheat prices, however, is in prospect for 1932. World carryover on July 1, 1932, will again be abnormally large and there is as yet no evidence pointing toward any material increase in the demand for wheat in this country or abroad during the 1932 crop marketing season.

World wheat prices have declined in the past five years under the influence of a combination of unfavorable factors. Of primary importance has been the rapid expansion in world wheat acreage since 1925; as a result of this wheat production has increased more rapidly than consumption and in the piling up of large surplus carryovers. Also European importing countries were intensifying import restrictions on wheat; the general commodity price level was low and falling; general business activity continued to decline. As a consequence there was a tendency in Europe to allow stocks to decline and the burden of carrying still larger stocks was imposed on the exporting countries. In addition, the re-entry of Russia into the ranks of the important exporters in the 1930–31 season was a bearish factor of major signifi-

cance. Russia shipped a total of about 110,000,000 bushels during the season, most of it during the fall and early winter months. Much of this grain was shipped on consignment, and it piled up unsold in European ports. The abundance of Russian grain easily available substantially reduced the bargaining power of other exporters.

For the current season of 1931–32 world production was considerably smaller than last season, but accounted-for stocks July 1 totalled about 640,000,000 bushels, being considerably higher than the previous record of 1929. World prices have averaged a little lower than in the last half of 1930–31. In the United States, prices of soft white wheats, however, have been much lower than last year when prices were maintained by stabilization purchases.

Although prices of Pacific Coast soft white wheats are lower than last year they are still well above export parity. Consequently, exports of wheat and flour have been very small. For the United States as a whole the exportable surplus of wheat, allowing for a normal carryover of 125,000,000 bushels, as of January 1, 1932, is estimated at 300,000,000 bushels compared with 230,000,000 bushels as of January 1, 1931.

Exports of wheat have been decreased during the past two years by importing countries raising their tariffs, or adopting other measures which restrict the importation of foreign wheat and raise prices of their home-grown wheat above the world level. These restrictions have tended to increase the production and decrease the consumption of wheat within their borders. The uncertainty of tariffs and milling restrictions, together with the unsettled financial situation in Europe, has also tended to reduce the amount of wheat stocks which dealers in importing countries are willing to carry and thereby increased the burden of stocks in the exporting countries.

In the United States there is a fairly definite prospect of a much smaller production of winter wheat in 1932 than in 1931. The area sown to winter wheat in the fall of 1931 amounted to 38,682,000 acres. This is 10.4 per cent less than the acreage planted the previous fall. The condition of the crop on December 1 was the lowest with the exception of two years in the last two decades. The average abandonment for the last ten years has been 12.6 per cent. As the abandonment during last winter was only 5.0 per cent, average abandonment would result in a net decline of acreage to be harvested because of greater abandonment of nearly 8 per cent which, coupled with the reduction of 10.4 per cent in acreage sown, would amount to a reduction of nearly 18 per cent in the area of winter wheat

actually to be harvested in 1932, compared with that harvested in 1931.

Over a period of years a better balance between production and consumption of wheat is expected to be reached at price levels which will average above those now prevailing in the world markets but lower than have prevailed in the past decade. Substantial adjustments may be expected through forced contraction of high-cost acreage, through checking the expansion in low-cost acreage, through increased purchasing power of consumers, and through modifications of European import and milling restrictions. There is some evidence that a readjustment in acreage is already under way. In 1931, for the first time in seven years, the world acreage of wheat, excluding Russia and China, showed a significant decline.

BARLEY

Present indications point toward somewhat lower prices of barley in 1932 than prevailed in 1931. Although the carryover of barley at the beginning of the marketing season will probably be small, this may be more than offset by the larger production in prospect. Demand for feed and malting barley in 1932 is not likely to show any material improvement over that of 1931 and may not be as good.

As a result of low yields due to the drought the production of barley in California in 1931 amounted to only 330,600 tons as compared with 787,680 tons in 1930 and the 1926–1930 average of 736,800 tons. Not only was the 1931 barley crop short in this state but it was also short in other important barley-producing states, particularly in the Dakotas and Montana. The total United States production of barley in 1931 was only about two-thirds as large as the production in each of the two preceding years.

Total world barley production in the countries reported was about 15 per cent below that of 1930. The North American countries, which decreased their acreage considerably, had a production more than 173,000,000 bushels below that of the preceding year. The 1931 barley crop in Europe, although sown on a slightly larger area, was 8 per cent below the 1930 production in the same countries, and the smallest harvest since 1927. The outturn, exclusive of Russia, was 60,200,000 bushels below that of 1930. Production in Asia was 2,500,000 bushels below that of the previous year. The North African countries showed an increase of 9,000,000 bushels, and Argentina an increase of 4,800,000 bushels.

Even though the 1932 acreage of barley in California should be smaller than last year it is probable that production will be substantially larger. The average yield per acre in 1931 was only 8.1 hundredweight compared with 14.4 hundredweight in 1930 and the 1926–1930 average of 14.0 hundredweight.

The demand for feed barley in California is not likely to be any larger in 1932 than in 1931 and may be smaller. With the exception of hogs, the numbers of livestock on farms in California on January 1, 1932 were smaller than on the same date a year earlier. During the year the number of horses decreased 8 per cent, mules 5 per cent, all cattle 6 per cent, and sheep 4 per cent. On the other hand, the number of hogs increased 20 per cent. With rainfall above normal in most parts of the state, pastures are expected to furnish more feed in 1932 than in 1931, and with the prospects of a larger water supply for irrigation the yields of alfalfa may be higher. Low prices of dairy products may tend to restrict the feeding of concentrates.

The export demand for barley may not be as favorable in 1932 as in 1931. In September, 1931 the United Kingdom went off the gold basis. The resulting decline in the value of the pound sterling in terms of gold has made it more difficult to export barley to that country. Yields per acre in Europe in 1931 were low and there is as yet no evidence that low yields will occur again in 1932. The demand for malting barley in the principal importing countries is not expected to increase materially during the marketing season of the 1932 crop.

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